

# SERVICE MANUAL & PARTS LIST

**AMC-20CF MOBILE DENTAL SYSTEM**



 **Aseptico**

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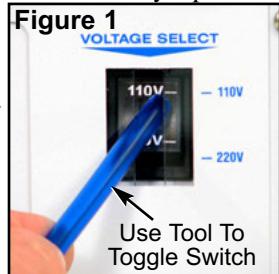
## GENERAL SERVICE INFORMATION

This service and parts manual offers information and parts lists not available in the AMC-20CF Operation and Maintenance Instruction Manual. It will help you better understand the operation of the AMC-20CF Mobile Dental System, thereby reducing service time. A Schematic Diagram Set includes assembly drawings with individual part numbers, plumbing diagrams, and electrical schematics. The plumbing and electrical diagrams show all air, water, and wiring components as installed in the unit. Individual parts are also listed and referenced to Figures with callouts in the Parts Lists. A Detachable Parts List is also included. Use the information in the Parts Lists when ordering replacement parts.

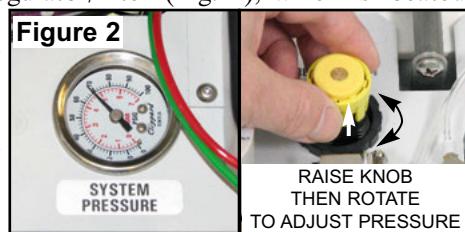
## INSPECTION & OPERATION VERIFICATION

To verify that the AMC-20CF unit is functioning properly, first follow the Setup procedure in the Operation and Maintenance Manual. The System is designed to operate from 110V or 220V 50/60Hz power. A manually operated switch (Fig. 1), located above the power inlet cord, allows the user to select the proper voltage. The System is protected by three sets of circuit breakers: 20 Amp for 110V, 10 Amp for 220V, and 1 Amp for the isolated voltage circuits.

Toggle the Bottle Pressure Release Toggle switch, located on the right-hand side of the unit (Fig. 3), to the ON position. Toggle the Air Tank Pressure Toggle switch, located on the bottom-left rear of the unit, to the ON position. Turn the Main Power Switch, located on the top-right rear of the unit, to the ON position. The electric-motor control panel should light up and the compressor pump should fill the air reservoir and water bottles. With the compressor pump engaged, the air reservoir should pressurize to a factory preset of approximately 110 PSI (7.58 bar) and the System should pressurize to a preset of 80 PSI (5.5 bar). The 80 PSI system pressure is regulated by the regulator/filter (Fig. 2), which is located under the top lid, near the right rear side. The System pressure is indicated on the circular pressure gauge, which is also located under the top lid.



Use Tool To Toggle Switch

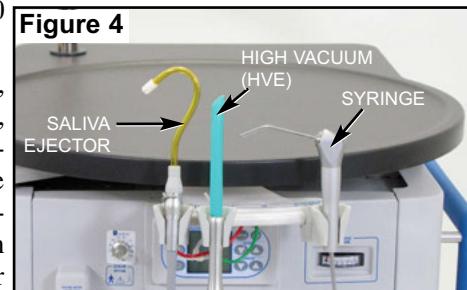


RAISE KNOB THEN ROTATE TO ADJUST PRESSURE

and marked "System Pressure".

The AMC-20CF System uses a single compressor motor with a split head. The split head provides pressure on one side and vacuum on the other. The vacuum side uses venturi boosters to increase the vacuum. The compressor is controlled by a pressure sensor located on the tank. The sensor activates the compressor air pressure whenever the air reservoir needs to be recharged. The recharge starts when the pressure in the air reservoir drops to approximately 80 PSI, and it stops when the reservoir becomes fully charged at a factory preset of approximately 110 PSI.

All the handpiece, curing light, scaler, and vacuum instrument holders are air-activated holders. If the High Vacuum Ejector

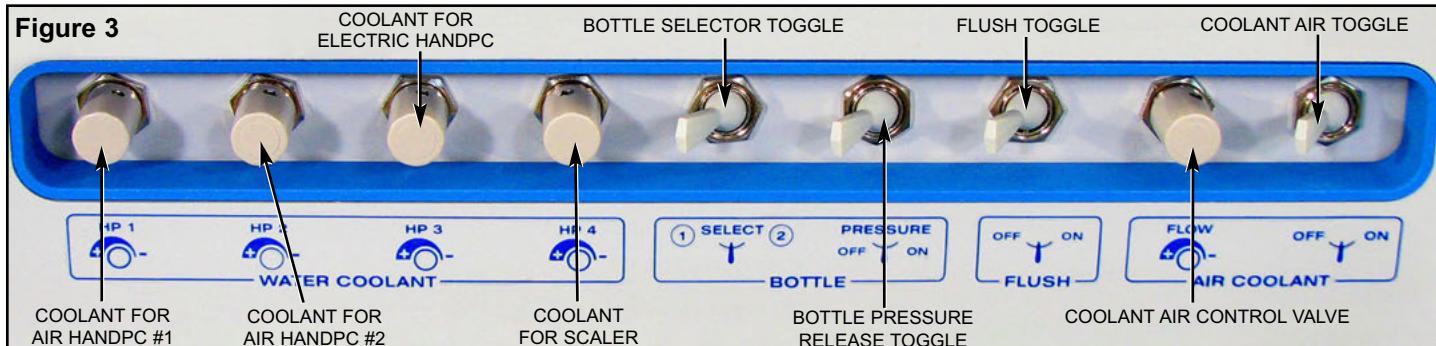


(HVE) or low volume saliva ejector instruments (Fig. 4) are removed from their holders (or if they aren't properly seated in their holders), the compressor will run continuously, even when the air reservoir and System pressure are fully pressurized. This is because the air from the pressure side of the compressor is diverted through a valve to a venturi, which increases the vacuum. When the pressure in the air reservoir drops to approximately 80 PSI, the air is diverted back to the reservoir and recharges it until its pressure reaches the 110 PSI preset. If the HVE and saliva ejector instruments are seated in their holders properly but the compressor fails to turn off, turn the unit's power switch OFF and check for air leaks in the System. If the System pressure gauge is showing pressure, the leaking sound should be detectable. Use your ear, or place a tube to your ear like a stethoscope, to locate the source of the leak. If a leak can't be heard from any air lines or fittings, check the water bottles for tightness and the condition of their seals.

### Air/Water Syringe

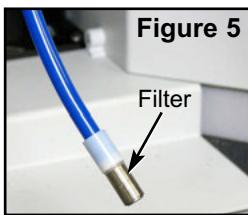
Check the 3-Way Air/Water Syringe (Fig. 4) by depressing the air and water syringe buttons individually then both simultaneously for spray. A Syringe Air/Water Flow Adjustment Block is located under the top Lid, behind the divider wall, beside the Scaler Module.

Figure 3



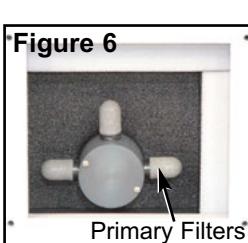
## Water Filters

Inspect the water filters (Fig. 5) on the ends of the water pick-up tubes that protrude into the two water bottles. If the water filters become clogged and restrict the water flow, they need to be replaced. CAUTION: Do not run saline solutions through the water system -- saline will corrode the water filters.



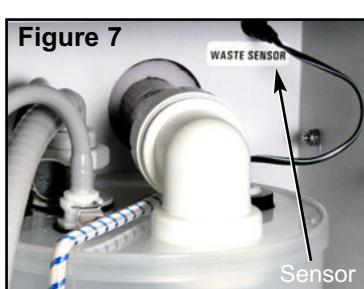
## Air Filters

The air pressure side of the compressor uses a dual-filtered air intake canister (Fig. 6) located on the back side of the unit. It is located behind a rectangular cover that attaches to the unit with four captive screws. Three primary filters are on the outer perimeter of the canister. The secondary filter is located inside the canister and can be accessed for cleaning or replacement by removing two Phillips head screws on the canister cap. Both the primary and secondary filters should be replaced if they become clogged and restrict air flow.



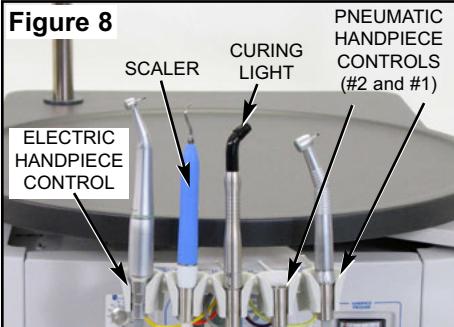
## Vacuum System

To check the function of the vacuum system, first allow the System to reach full pressure. Check the solids trap to ensure that it is clear of debris. Check that the large tube to the waste tank is fully seated in the fitting and all the other tubes are properly connected to the tank. Ensure that the waste sensor (Fig. 7) is plugged into the connector on the unit. The System will not activate the compressor if this connection is not activated. Fill a container with one liter of water. Turn the valve on the low vacuum saliva ejector instrument to the OFF position and submerge the HVE instrument into the container. It should take approximately 6 seconds to extract the liter of water from the container using the HVE. Refill the liter of water and turn the HVE instrument OFF and the saliva ejector to ON, then submerge the saliva ejector instrument into the container. It should take approximately 42 seconds to remove one liter of water using the saliva ejector. NOTE: If the System is pressurizing the air tank, a drop in this vacuum will appear due to the pressure side of the compressor disengaging the booster vacuum venturi.



## Instruments

To check the functions of the high-speed handpieces, curing light, scaler, and electric motor, remove each instrument from their respective holders one at a time, start-

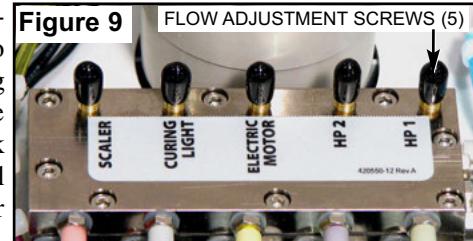


ing with handpiece #1, which is located on the right-hand end of the left arm (Fig. 8). All of the handpieces plus the curing light and scaler are activated by the air-driven Foot Control.

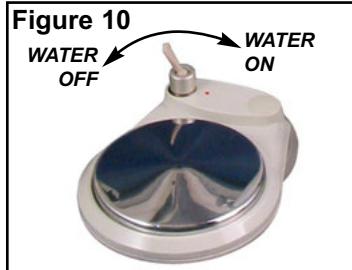
## Pneumatic Handpieces (2 Qty):

With handpiece #1 removed from its holder, activate the Foot Control and check the handpiece pressure on the gauge located on the front panel marked "Handpiece Pressure".

Adjust the handpiece pressure to the proper setting by adjusting the right-hand black knob on the control block located under the top Lid (Fig. 9).



IMPORTANT: Adjust to the pressure recommended by the handpiece manufacturer. NOTE: The handpiece pressure gauge on the front panel will be approximately 3 PSI higher than a gauge installed at the end of the line, between the fitting and the handpiece. Toggle the coolant air toggle switch located on the right side of the unit to the ON position. Adjust the coolant air control valve (located next to the coolant air toggle switch - Fig. 3) and feel for air coming out of the handpiece. The water toggle switch located on the Foot Control activates the water through the control module. Toggle the water to ON (Fig. 10) and adjust the handpiece water coolant valve, marked "HP1" on the right side of the unit (Fig. 3), for proper spray. Ensure that the light in the handpiece turns on when the Foot Control is depressed and turns off approximately 10 seconds after the Foot Control is released. Place the #1 handpiece back into its holder and remove the second high-speed handpiece from its holder. Repeat the previous procedures for this second handpiece, but adjust the second black knob from the right on the control block (Fig. 9) for proper pressure and adjust the "HP2" handpiece coolant valve (Fig. 3). When set up properly, replace the second high-speed handpiece into its holder.



## Curing Light:

Remove the Curing Light from its holder (Fig. 8). Toggle the water valve on the Foot Control to the OFF position. Activate the foot pedal and adjust the instrument pressure to 20 PSI with the fourth black knob from the right on the control block (Fig. 9). Replace the curing light into its holder. IMPORTANT: Avoid looking directly into the curing light. Ensure that darkened eyewear is worn prior to activating the foot pedal.

## Scaler:

Remove the Scaler from its holder (Fig. 8). Toggle the water switch on the Foot Control to the ON position. Depress the foot pedal and adjust the left (5th from the right) black knob on the control block to approximately 20 PSI. Adjust the water valve "HP4" located on the right side of the unit until the Scaler flow is no less than 20 ml/min at the tip. Check the

intensity of the Scaler by turning the ultrasonic intensity adjustment knob located on the upper left side of the front cover. Replace the Scaler into its holder.

#### **Electric Handpiece (1):**

Remove the Electric handpiece from its holder (Fig. 8). Depress the Foot Control pedal and adjust the middle black knob on the control block (Fig. 9) to read 30 to 45 PSI max. on the gauge. Adjust the "HP3" water valve on the right side of the unit (Fig. 3) to control water flow to the electric handpiece. Return the electric handpiece to its holder.

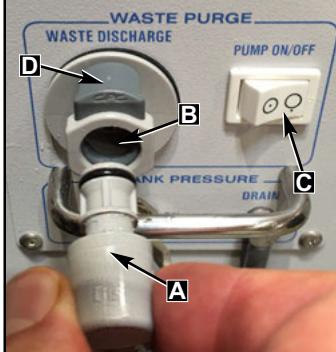
#### **Handpiece Flush Toggle:**

To check the handpiece flush toggle switch, which is located on the right-hand side of the unit (Fig. 3), remove a high-speed handpiece and toggle the switch to the ON position. Ensure that water flows through the line.

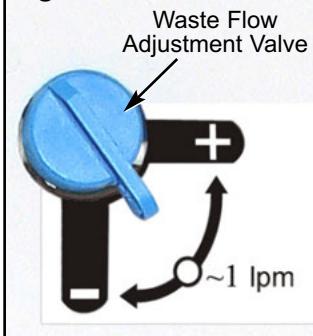
#### **Waste System:**

To check the waste pump, use the HVE instrument to vacuum a liter of water to the waste container. Place the HVE back into its holder. Connect the waste hose **A** to the waste discharge **B** on the back of the unit by inserting the waste hose elbow until it locks into place (Fig. 11). Switch on the waste purge pump **C** to empty the waste system. While emptying, check that the blue control valve located in the waste compartment (Fig. 12) works properly by manually turning the valve clockwise to decrease flow of the liquid and counterclockwise to increase flow. Ensure that the waste tank empties, then switch off the waste purge pump. To disconnect the waste hose, depress the button **D** on top of the waste discharge to release the waste hose (Fig. 11). NOTE: The waste hose must be connected to the waste discharge to enable pump switch operation.

**Figure 11**



**Figure 12**



#### **Electrical System:**

The power outlet receptacles and applied parts are controlled by an isolation transformer tied to the 1-Amp circuit breakers. If the rear receptacles, scaler, curing light, or electrical motor fail to operate, check these 1-Amp breakers. After the voltage selector switch is set to the proper power input, system voltage is controlled internally in the unit with a step-down/up transformer. This circuit is protected by 20-Amp circuit breakers for 110V and 10-Amp for 220V.

#### **Cleaning and Lubrication**

When servicing the AMC-20CF Mobile Dental System, the parts of any component disassembled should be thoroughly cleaned and inspected before reassembly. A hot detergent solution is an effective cleaner on all non-electrical parts. Flush all non-electrical parts with clear, hot water. Abrasive cleaners have the potential to damage surface finishes and should be avoided. Any wiping should be done with a soft lint-free cloth.

Electrical parts should be cleaned with an appropriate electrical parts cleaner or air.

Use a silicone base lubricating grease, such as Parker Super O-Lube, PN 490006, to lubricate O-rings and seals in the system. Before performing any reassembly of parts that contain O-rings or seals, apply a light coat of silicone grease. This will make installation easier and prevent the O-rings or seals from being damaged.

**WATER LINES** - Disinfect the water lines weekly. Prepare a 1:10 bleach solution (1 part household bleach to 10 parts water). Purge all water lines (see page 48, *Purging Water From the System*). Fill water bottles with bleach solution. Run bleach solution through all lines. Allow bleach solution to stand in lines for 10 minutes but no longer: **Immediately remove water bottles and discard the bleach, then flush water bottles and all lines thoroughly with clean water.** Purge all water lines with air and leave dry until next clinical use.

**CAUTION:**  
Do not run saline solutions through the water system -- saline will corrode the water filters.

#### **Adhesives**

Refer to included Schematic Drawing Set, PN 420872, for proper identification and application of all adhesives. Part numbers for adhesives are also listed at the end of the Final Assembly Parts List on page 34, as Not Shown (NS) items.

## DISASSEMBLY

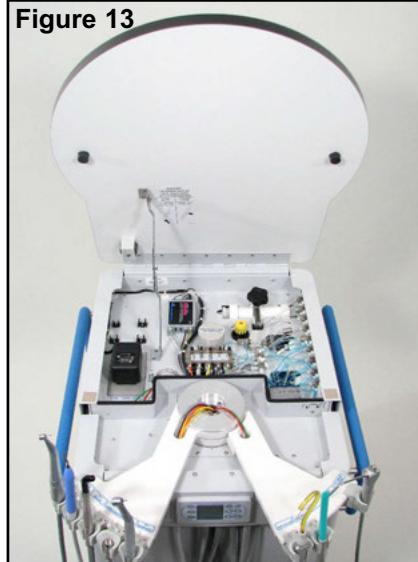
**NOTE:** Most of the plumbing for the AMC-20CF System is accessible by lifting the top lid and latching it in the upright position. The power supplies, compressor, waste pump and miscellaneous items are accessible by removing the front and side panels. Power inlets and most of the power outlets are accessible by removing the two panels in the rear of the unit.

### FRONT & SIDE PANELS REMOVAL

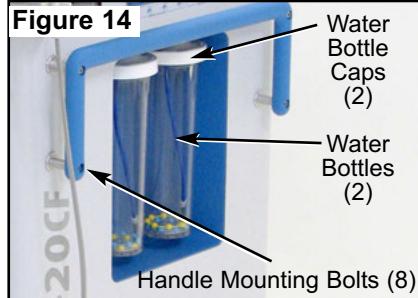
Remove accessory tray, arm, and post from the top lid. Lift the top lid and lock it open (Fig. 13). Remove the single screws (PN 510477) located on the bottoms of the left-hand and right-hand side panels with a 3/32" Allen wrench. Remove the four bolts (PN: 510693) attaching the large blue handles (PN 330540) to each side panel with a 3/16 Allen wrench. Remove both handles. Remove the water bottles (PN 730631-01) and their tops from the right-side panel (Fig. 14). Remove both side panel assemblies.

Swing the instrument arms away from the front panel. Remove the four screws (PN 510404) from the top and sides of the front panel, and the two screws (PN 510506) from the bottom front (Fig. 15) of the panel with a 3/32" Allen wrench. Carefully pull the front panel straight out approximately 1". Reach behind the panel and disconnect the 4-pin white connector from the electric motor display assembly and then continue to pull the panel out until fully detached. The front panel can be removed, if necessary, by running all of the tubing through the manifold access slot, but typically this isn't necessary to gain access inside the front of the unit. Alternatively, the front panel can be pivoted out of the way, to the left side of the unit, without detaching any additional wiring or tubing: while carefully

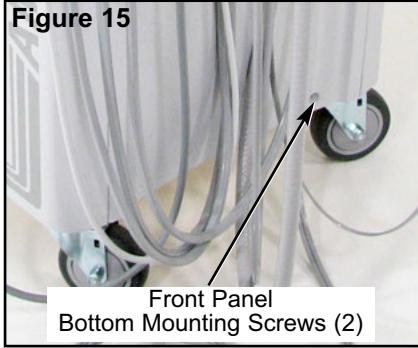
**Figure 13**



**Figure 14**



**Figure 15**



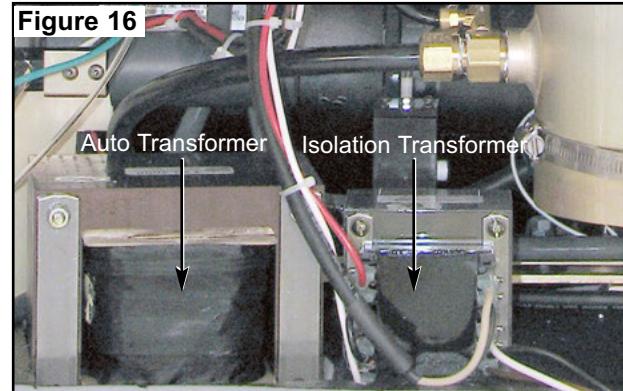
looping the instrument hosing through the bulkhead access opening, swing the right edge of the panel away from the chassis approximately 90°. This will open up the front of the chassis, providing adequate working access to the front of the unit.

### AUTO TRANSFORMER

The auto transformer (PN 800117) is the larger of the two transformers on the front of the chassis base (Fig. 16). Disconnect the three wires running to the three terminal blocks located on the left side of the middle shelf. Remove the four mounting screws (PN 510477) and lock washers (PN 510508) on the transformer with a 5/32" Allen wrench.

Reassemble the transformer in the reverse order. Refer to electrical schematic for proper termination.

**Figure 16**



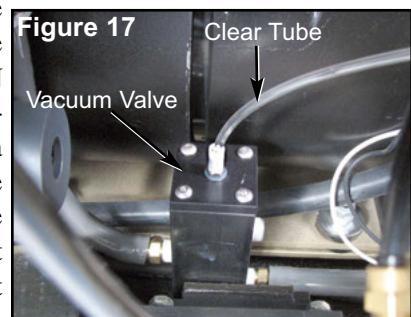
### ISOLATION TRANSFORMER

The isolation transformer (PN 800118) is the smaller of the two transformers on the chassis base (Fig. 16). Disconnect the wires going to the transformer, at the transformer. Remove the four mounting screws (PN 510312) and lock washers (PN 510421) on the transformer with a 1/8" Allen wrench.

Reassemble the transformer in the reverse order. Refer to electrical schematic for proper termination.

### VACUUM VALVE

The vacuum valve is located on the chassis base, between the isolation transformer and the compressor (Fig. 17). Remove the gray tubing (PN 730373) and the clear tube (PN AA-94C) from the valve, at the valve. Remove the mounting screw (PN 510506) from the underside of the base with a 3/32" Allen wrench. (The screw is located near the center of the base, just forward of the front motor mounts.)



Reassemble the vacuum valve in the reverse order. Take care

not to kink the vacuum lines. If a vacuum line is kinked, replace it to prevent later collapse of the line.

## VACUUM VALVE REPAIR

The vacuum valve (Fig. 17) can be repaired by removing the four screws (PN 510036) on the top with a 5/64" Allen wrench, and replacing the three inner O-rings (PN 520078).

Reassemble the valve in reverse order. Lightly apply some O-ring grease to the O-rings when reassembling.

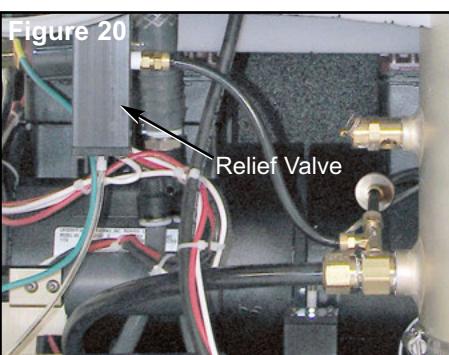
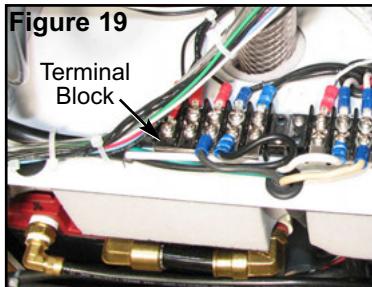
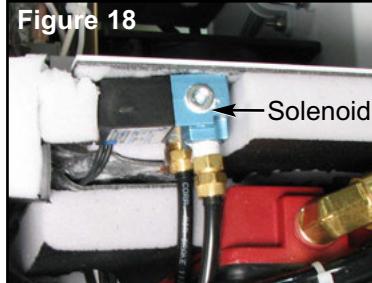
## THREE-WAY SOLENOID

The three-way solenoid (PN 730591) is located under the right side of the middle shelf, directly behind the air tank (Fig. 18). Follow the black wire from the solenoid to the terminal block on the middle shelf that terminates all the black wires (Fig. 19). Disconnect the black wire from this block. Follow the other black wire to the waste relay (PN 800116) on the middle shelf, located to the left of the air tank. Disconnect this wire from the waste relay. Remove the two tubes (PN 730130) to the solenoid with a 7/16" open-end wrench. Remove the two mounting screws (PN 510506) with a 3/32" Allen wrench. Pull the wires through the grommet in the middle shelf and remove the solenoid valve.

If replacing the solenoid, remove the fittings from the old valve and mount onto the new solenoid. Attach the new solenoid to the middle shelf and run the wires through the grommet. Cut and trim one black wire to the waste relay and attach to the relay with a female terminal (PN 860240). Attach the other black wire to the terminal block with a ring terminal (PN 860004).

## RELIEF VALVE

The relief valve is attached to the bottom of the middle shelf, on the left front side, directly above the auto transformer (Fig. 20). Remove the sleeve clamp (PN 730015) and tube (PN AA-94C) at the

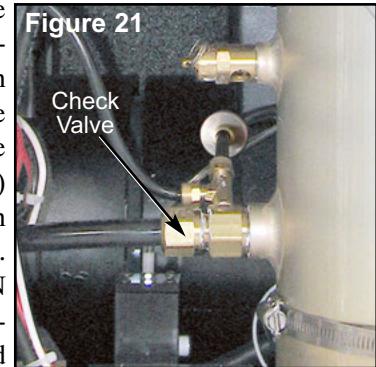


bottom of the valve with needle-nose pliers. Remove the tube (PN 730130) on the side with a 7/16" open-end wrench. Remove the mounting screw (PN 510506) from the top of the middle shelf with a 3/32" Allen wrench. Note that the valve can be repaired using the same procedure as previously described for the vacuum valve.

Reassemble the relief valve in the reverse order.

## AIR TANK CHECK VALVE

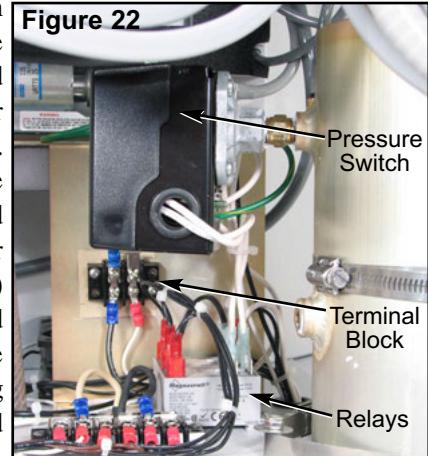
The air tank check valve (PN 730257) is the large fitting with a tee located on the side of the tank near the bottom (Fig. 21). Remove the two tubes (PN 730130) to the tee (PN 730119) with a 7/16" open-end wrench. Remove the large tube (PN 730256) from the compressor with a 13/16" open-end wrench. Remove the tee from the check valve with a 11/32" open-end wrench. Remove the check valve with a 7/8-inch open-end wrench.



Replace components in the reverse order. Ensure that the large tube from the compressor still has the internal sleeve clamp (PN 730261) attached to the inside-diameter of the tube.

## PRESSURE SWITCH

The pressure switch (PN 830133) is the large black box located on the side of the air tank, near the top (Fig. 22). Disconnect the green/yellow ground cable from the upper fan cover (PN 461864) with a 11/32" open-end wrench. Disconnect the three white wires going to the waste relay and vacuum relay.



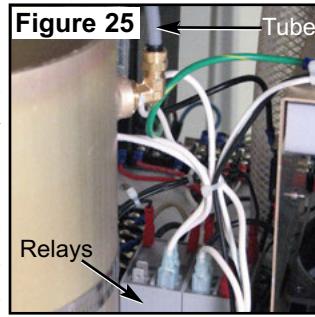
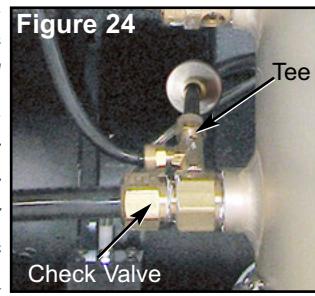
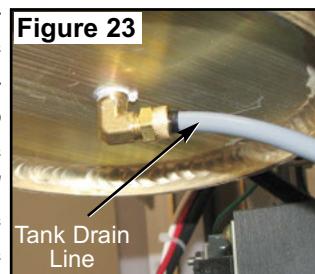
Disconnect the black wire going to the terminal block located on the front side of the upper fan cover with a #2 Phillips screwdriver. Follow the remaining white wire to the neutral terminal block (the block that terminates the white wires) located on the left side of the middle shelf and remove with a #2 Phillips screwdriver. Remove the pressure switch from the brass nipple (PN 730233) with a 9/16" open-end wrench on the nipple and a 3/4" open-end wrench on the switch if the switch is a Furnas brand. If the switch is a LeFoo brand, use a 22mm wrench on the switch. Loosen the mounting screw on

## DISASSEMBLY - Continued

the pressure switch cover with a Phillips screwdriver and remove cover. Remove the wires from the switch with a #2 Phillips screwdriver and place on the new switch per the electrical schematic. Leaving the cover off, install the new switch onto the tank and reconnect the wire per the electrical schematic. Open the top lid on the unit, raise the knob on the pressure regulator (PN 730598), and then rotate the knob clockwise to full open. This will allow the user to observe the system pressure gauge on the top shelf while setting the pressure. Power up the unit. CAUTION: The terminal blocks and connecting wires are live when the unit is powered up. Refer to the label inside the pressure switch cover to adjust the cut-out and cut-in pressure screws. Adjust the cut-out pressure to 110 PSI and cut-in to approximately 80/90 PSI. Readjust the pressure regulator back to approximately 80 PSI. Reattach the pressure switch cover. There is also a tank-pressure port available just below the pressure switch where a gauge can be installed and used to observe the system pressure: Remove the port plug (PN 730098) with a 1/4" Allen wrench and install a 1/4 NPT pressure gauge of appropriate range. Turn the unit off and remove the power cord.

### AIR TANK

Remove the drain line (PN AA-95G) from the bottom of the tank (Fig. 23) with a 7/16" open-end wrench. Remove the two lines going to the tee on the check valve (Fig. 24) with a 7/16" open-end wrench. Remove the large tube from the check valve with a 13/16" open-end wrench. Remove the tube next to the pressure switch with a 7/16" open-end wrench (Fig. 25). Follow the wires from the pressure switch to the waste and vacuum relays and remove. Follow the black wire from the pressure switch to the terminal block and remove with a #2 Phillips screwdriver. Follow the long white wire to the neutral terminal block and remove with a #2 Phillips screwdriver. Loosen the caster under the tank with two 3/4" wrenches until the nut is held onto the caster with minimal threading. Open the top lid on the unit and lock in the raised position. Swing the instrument arms to the left side of the unit. Remove the two screws (PN 510404) attaching the right-hand vertical angle (PN 461665) with a 3/32" Allen wrench. Undo the three clamps (PN 510514) around the tank with a

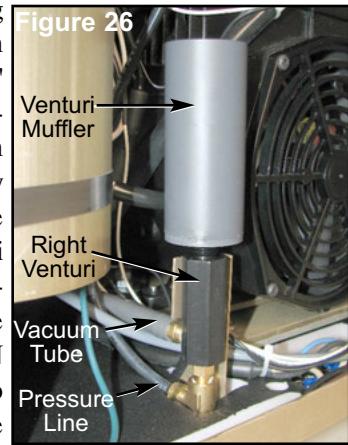


5/16" socket or a standard screwdriver. Use a 5/32" Allen wrench to remove the two screws (PN 510477) on both sides of the angle that attach the upright bracket (PN 461665) to the chassis. Lift slightly on the top shelf to tilt the upright away from the unit. Remove the tank. Remove all of the components from the old tank and replace onto the new tank. For tools required, see instructions for the tank components.

Reassemble the air tank in the reverse order

### RIGHT VENTURI ASSEMBLY

Remove the two mounting screws (PN 510404) from under the chassis with a 3/32" Allen wrench. Remove the vacuum tube (PN 730373) from the vacuum valve assembly (Fig. 26). Remove the pressure line (PN 730130) to the venturi (PN 461851) with a 7/16" open-end wrench. To remove the venturi from the bracket (PN 461897), remove the two screws (PN 510309) from the

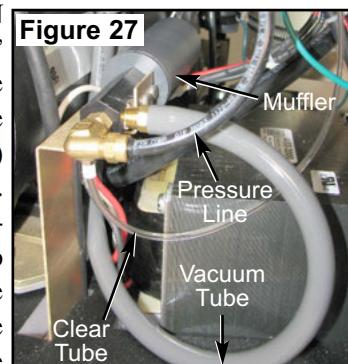


bracket with a 3/32-inch Allen wrench. If the venturi is plugged, it is possible to repair it by removing the elbow fitting (PN 730351) from the venturi nozzle (PN 461852) with a 7/16" open-end wrench on the nozzle and a 9/16" open-end wrench on the elbow fitting. Then remove the nozzle from the venturi body with a 7/16" wrench for the nozzle and a 3/4" wrench for the body. Then clean out the orifice in the nozzle using a drill with a 0.048" diameter bit. Ensure that the orifice is clear with no chips or burs, which will affect performance.

Reassemble the right venturi assembly in the reverse order.

### LEFT VENTURI ASSEMBLY

Remove the vacuum tube (PN 730373) coming from the 'Y' fitting on the vacuum tube assembly (Fig. 27). Remove the pressure line (PN 730130) with a 7/16" open-end wrench. Using a pair of needle nose pliers, remove the sleeve clamp (PN 730015) and clear tube (PN AA-94C) coming from the relief valve assembly. Remove the two screws (PN 510309) holding the venturi body (PN 461851) to the bracket (PN 461869) with a 3/32" Allen wrench. To repair the venturi, remove the barb fitting (PN 730062) and gasket (PN 730074) from the elbow fitting (PN 730351-01) with a 1/4" wrench. Then, follow the same procedure shown above for the right venturi to remove the elbow and nozzle, and to clean out the orifice in the nozzle.



Reassemble the left venturi assembly in the reverse order.

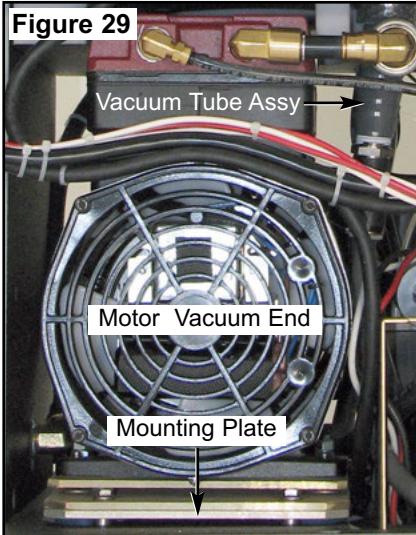
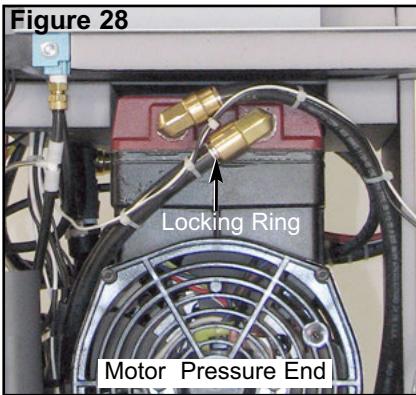
### VENTURI MUFFLER

Grasp the venturi assembly and unscrew muffler (PN 330564) from venturi body, either by hand or with a pair of channel locks.

Replace by screwing muffler on, hand tight.

### COMPRESSOR MOTOR ASSEMBLY

On the pressure end of the motor (Fig.28), disconnect the two large black tubes (PN 730256) by pressing on the locking ring on each fitting (PN 730638) and pulling out the tubes. Note that the pressure end of the compressor is the end with the power cable connection. On the vacuum end (Fig. 29), disconnect the large black tube (PN 730256) going to the large fitting (PN 730638) on the vacuum tube assembly by pushing on the ring and pulling on the tube. At the vacuum end, disconnect the small tube (PN 730130) at the smaller fitting (PN 730638) with a 7/16" open-end wrench.

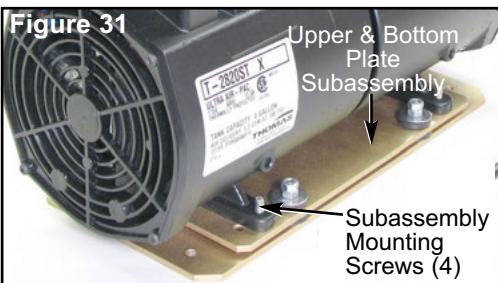
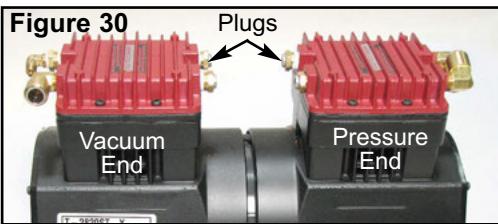


Disconnect the motor green/yellow ground wire on the lower front vertical (by the large transformer) with an 11/32" wrench. Follow the white wire from the motor to the waste relay and disconnect terminal from relay. Follow the black wire to the 110 VAC terminal block (the block that terminates all the black wires - Fig. 19) on the middle shelf and disconnect the ring terminal with a #2 screwdriver. Cut all the cable ties that secure the motor wires and then gather all the motor wires with the compressor on the bottom shelf. Remove the four bolts (PN 510704) and washers (PN 510508) at the ends of the compressor mounting plate with a 7/16" wrench. Remove the motor, with mounting plates, from the chassis.

### COMPRESSOR REPLACEMENT

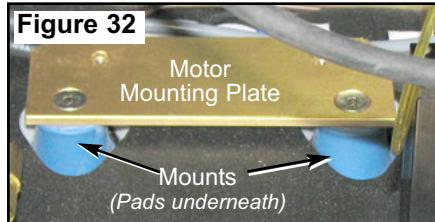
On the old compressor (PN 720024-01), remove the four plugs (PN 730637) on the inboard ports of the two heads with a 5/16"

Allen wrench and attach the plugs to the new compressor (Fig. 30). Remove the two large fittings (PN 730360) on the pressure end head of the old compressor with a 5/8" open-end wrench and attach to the new compressor with the same orientation. Note that the pressure end of the compressor is the end with the power cable connection. Remove the large fitting from the vacuum end with a 5/8" open-end wrench and the small fitting (PN 730638) with a 1/2" open-end wrench, and place both fittings on the new compressor with the same orientation. To remove the upper & bottom plate subassembly (Fig. 31), turn the compressor over onto its heads and remove the four screws (PN 510503) with a 3/32" Allen wrench.



### MOTOR MOUNTS

Remove the compressor as described previously. Remove the screws (PN 510702) that attach the plate (PN 461898) to the mounts with a 3/16" Allen wrench (Fig. 32). Remove the screws (PN 510352), washers (PN 510107), and nuts (PN 510126) that attach the mounts (PN 730314) and pads (PN 461929) to the chassis base with two 1/2" wrenches.



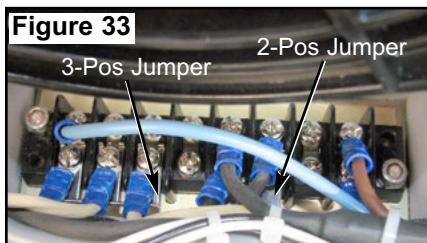
Replace motor mounts in the reverse order.

## DISASSEMBLY - Continued

### ISOLATED HIGH-VOLTAGE TERMINAL BLOCK

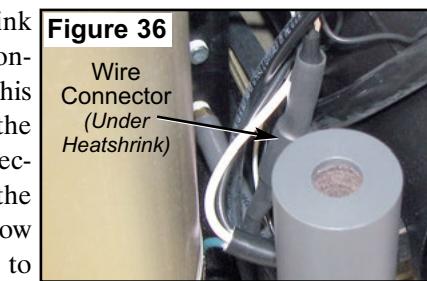
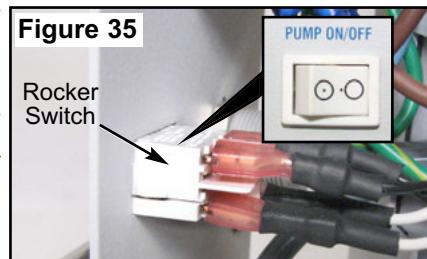
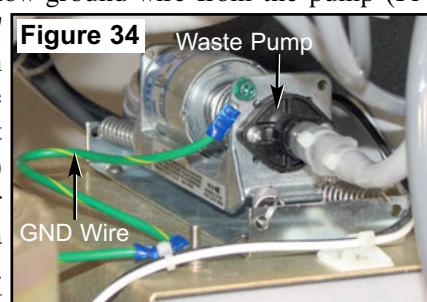
This terminal block (PN 860256) is located on the lower right side of the chassis base, under the pressure end of the compressor (Fig. 33). Remove all the wires going to the terminal block with a #2 Phillips screwdriver. Remove the two mounting nuts (PN 510395) with a 5/16" open-end wrench, then remove block and insulator (PN 461971). Note positions of the 3-position and 2-position jumpers (PNs 860253 & 860254 respectively), then remove jumpers from the old terminal block and attach to the new block.

Reassemble the terminal block in the reverse order, referring to the electrical schematic for proper installation.



### WASTE PUMP

Remove the green/yellow ground wire from the pump (PN 730271) with a 1/4" wrench (Fig. 34). On the back side of the cart, remove the eight screws (PN 510160) that attach the power outlet assembly with a 5/64" Allen wrench. Follow the white (PN 870031) and black (PN 870026) wires from the pump to the white rocker switch (PN 830108) on the power outlet assembly (Fig. 35). On the black wire, there is a large section covered by heat shrink that encloses a wire connector (Fig. 36). Peel this heat shrink back, on the pump side of the connector, and disconnect the female terminal. Follow the other white wire to the rocker switch and remove the terminal at that location. Cut the cable ties that secure the tubing to the pump ends and remove both clear tubes (PN 730288) from the pump. Leave the reducers (PN 730627) attached to the tubes. Remove the four mounting screws (PN 510404) from the pump with a 3/32" Allen wrench. Carefully feed the pump wires through the grommet in the middle shelf and remove the pump.

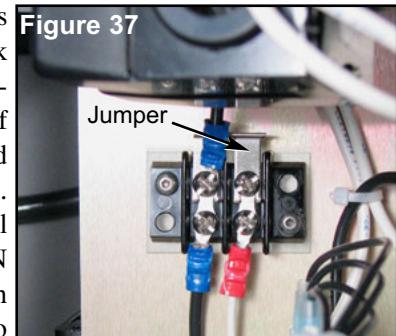


Reassemble the waste pump in the reverse order, referring to the electrical schematic for the proper installation.

### COOLING FAN TERMINAL BLOCK

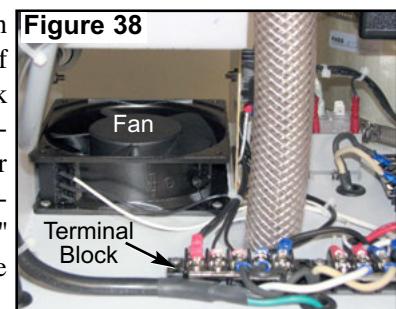
The cooling fan terminal block (PN 860255) is located on the vertical wall of the pump support bracket (PN 461864) (Fig. 37). Remove the wires going to the terminal block with a #2 Phillips screwdriver. Note position of jumper (PN 860254) and remove from block. Remove the terminal block and insulator (PN 461973) with a 5/64" Allen wrench. Attach jumper to the new block.

Reassemble in the reverse order, referring to the electrical schematic for proper installation.



### INNER COOLING FAN

The inner cooling fan (PN 540012) is located on the middle shelf (Fig. 38). Follow the white and black wires from the fan to the terminal blocks on the left side of the shelf and remove from block with a #2 Phillips screwdriver. Remove the four screws (PN 510160) holding the fan with a 5/64" Allen wrench. Remove fan.



Reassemble fan in the reverse order with the air flow indicator on the fan pointing downward. Refer to the electrical schematic for proper installation.

### WASTE PUMP CONTROL VALVE

This pump control valve (PN 730609) is located on the inboard wall of the waste container shield (PN 461742), above the inner cooling fan (Fig. 39). Remove the two tubes (PN 730312) going to the valve by pushing in on the white rings and pulling the tubes out of the valve. Remove the two retaining clamps (PN 510686) with an 11/32" wrench.

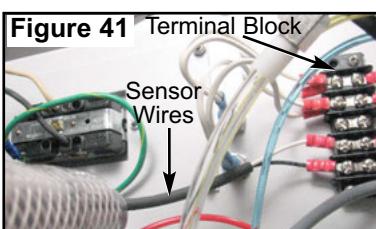
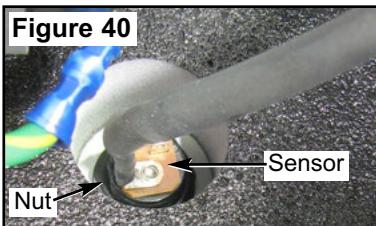


Replace control valve in the reverse order.

## WASTE SENSOR CONNECTOR

The waste sensor connector (PN 860080) is located on the inboard side of the waste shield (Fig. 40), above the large vacuum tube (PN 730608). Follow the two wires (PNs 870026 & 870031) going to the terminal block (PN 860241) under the upper shelf (Fig. 41) and remove wires with a #2 Phillips screwdriver. Remove the nut on the inboard side of the connector with a 9/16" wrench and then pull the connector out through the outboard side of the waste shield, from the waste compartment.

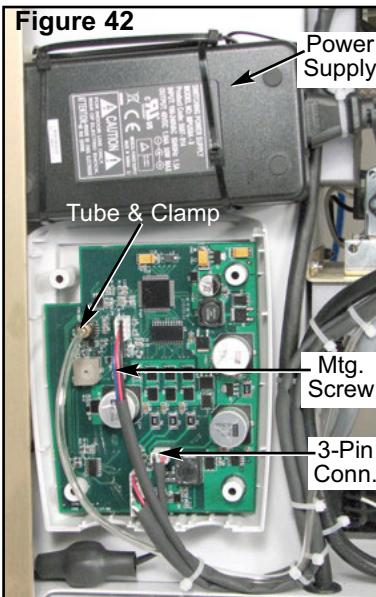
Reassemble the waste sensor connector in the reverse order. Refer to electrical schematic for proper installation.



## AEU-5000 POWER BOARD

The AEU-5000 power PCB board (PN 330565-C) is located on the left inboard side of the waste shield (Fig. 42). Disconnect the cables going to the board. Remove the sleeve clamp (PN 461607) and tube (PN 730227) going to the board with a pair of needle-nose pliers. Remove the board mounting screw with a #2 Phillips screwdriver.

Reassemble power board in the reverse order, referring to electrical and plumbing schematics for proper installation. **IMPORTANT:** The AEU-5000 power PCB board is not a user-serviceable component of the AMC-20CF system and should be returned to Aseptico if repairs are necessary.



## AEU-5000 POWER SUPPLY

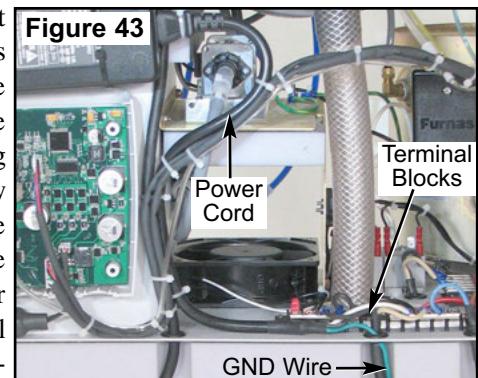
The AEU-5000 power supply (PN 330570) is located directly above the AEU-5000 power board (Fig. 42). Disconnect the three-pin connector with the red and black wire at the power board. Cut the cable tie going to the other tie that wraps around the power cord and remove the power cord from the supply. Cut the remaining cable ties around the

power supply and remove the supply from its Velcro pad. Remove the two cable tie pieces from their cable-tie holders and replace with new ties.

Reassemble power supply in the reverse order.

## AEU-5000 POWER CORD

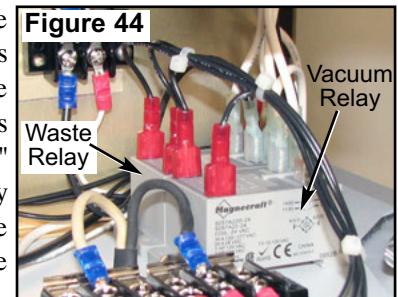
Cut the cable tie at the power supply as described above and remove the power cord plug (Fig. 43). Follow the black and white wires from the power cord to their respective terminal blocks on the middle shelf and remove wires with a #2 Phillips screwdriver. Follow the solid-green ground wire down to the ground stud on the chassis' front left vertical and remove wire with an 11/32" wrench. Pull the ground wire up through the grommet on the middle shelf and remove power cord.



Reassemble the power cord in the reverse order, referring to the electrical schematic for proper installation.

## VACUUM RELAY

The vacuum relay (PN 800116) is the relay on the middle shelf that has four wires connecting to it and is closest to the air tank (Fig. 44). Remove the female wire connectors to the relay. Remove one of the mounting screws (PN 510404) with a 3/32" Allen wrench and only loosen the other. Slide the relay from under the loose screw and remove relay.



Reassemble the vacuum relay in the reverse order. Refer to the electrical schematic for proper installation.

## WASTE RELAY

The waste relay (PN 800116) is next to the vacuum relay on the middle shelf and has six wires connecting to it (Fig. 44). Remove the female wire connectors from the relay. Remove one of the screws (PN 510404) with a 3/32" Allen wrench and loosen the other screw. Slide the relay from under the loose screw and remove relay.

Reassemble the waste relay in the reverse order. Refer to the electrical schematic for proper installation.

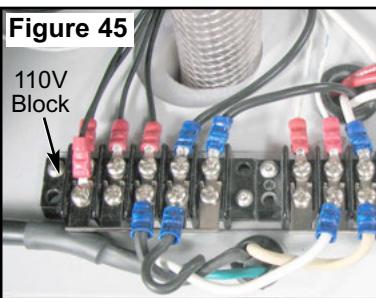
## DISASSEMBLY - Continued

### 110V TERMINAL BLOCK

The 110V terminal block (PN 860241) is the five-position block with the black wires located on the left side of the middle shelf (Fig. 45). Disconnect all wires and the 5-position jumper (PN 860245) with a #2 Phillips screwdriver.

Remove the two mounting screws (PN 510720) with a 5/64" Allen wrench and remove block.

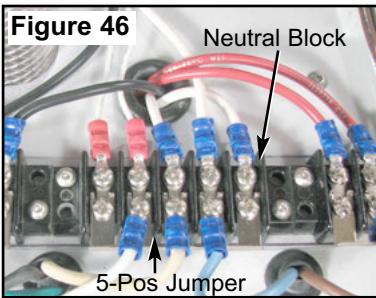
Reassemble the terminal block in the reverse order. Refer to the electrical schematic for proper installation.



### NEUTRAL TERMINAL BLOCK

The neutral terminal block (PN 860241) is the five-position block with the white and blue wires located on the left side of the middle shelf (Fig. 46). Disconnect all wires and the 5-position jumper (PN 860245) with a #2 Phillips screwdriver. Remove the two mounting screws (PN 510720) with a 5/64" Allen wrench and remove block.

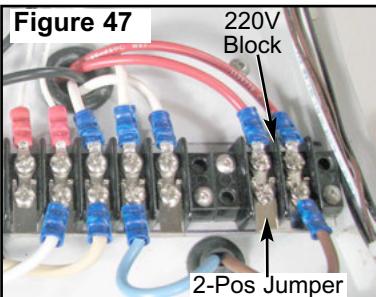
Reassemble the terminal block in the reverse order. Refer to the electrical schematic for proper installation.



### 220V TERMINAL BLOCK

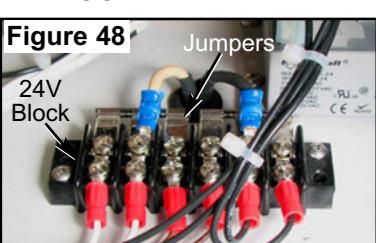
The 220V terminal block (PN 860255) is the two-position block on the left side of the middle shelf with the brown and red wires (Fig. 47). Disconnect all wires and the 2-position jumper (PN 860254) with a #2 Phillips screwdriver. Remove the two mounting screws (PN 510720) with a 5/64" Allen wrench and remove block.

Reassemble the terminal block in the reverse order. Refer to the electrical schematic for proper installation.



### 24V ISOLATION TERMINAL BLOCK

The 24V isolation terminal block (PN 860243) is the six-position block located at the center front of the middle shelf (Fig. 48). Remove all wires and the

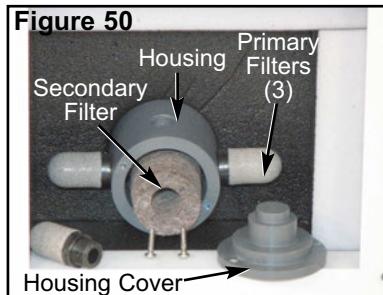


two 3-position jumpers (PN 860253) with a #2 Phillips screwdriver. Remove the two mounting screws (PN 510720) with a 5/64" Allen wrench and remove block.

Reassemble the terminal block in the reverse order. Refer to the electrical schematic for proper installation.

### AIR INPUT FILTER HOLDER

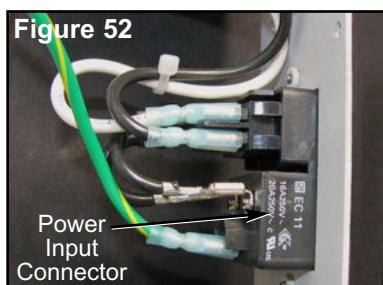
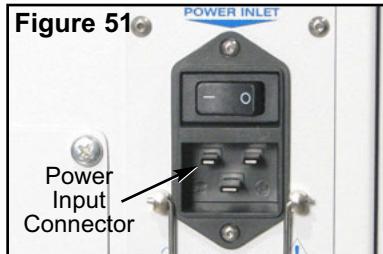
The air input filter holder (PN 461909) is located behind the louvered cover (PN 461784) on the bottom of the rear panel (Fig. 49). Remove the four captive screws (PN 510715), retainers (PN 510714), and the louvered cover (PN 461784) from the rear panel assembly. Unscrew the three small primary filters (PN 730571) from the holder housing (PN 461909) (Fig. 50). Remove the two Phillips head screws (PN 510191) from the cover (PN 461910) to access the inner secondary filter (PN 730382).



Reassemble the filter holder in the reverse order.

### POWER INPUT CONNECTOR

The power input connector (PN 840100) is located on the power inlet assembly plate, on the right side of the rear panel (Fig. 51). Remove the six screws (PN 510160) holding the assembly plate with a 5/64" Allen wrench. Pull the assembly plate away from the rear panel and remove the three female wire terminals that connect the black, white, and green/yellow wires to the inlet (Fig. 52). Remove retaining clip (PN 860269-01) and mounting hardware. Remove the two mounting screws (PN 510016) with a 1/16" Allen wrench, and then remove connector.



Reassemble the power input connector in the reverse order, referring to the electrical schematic for proper installation.

## VOLTAGE SELECTOR SWITCH

The voltage selector switch (PN 830136) is located on the power inlet assembly plate, above the power input connector (Fig. 53). Remove the six screws (PN 510160) holding the assembly plate with a 5/64" Allen wrench. Pull the assembly plate away from the rear panel and remove all six female wire terminals at the switch (Fig. 54). Remove the two nuts (PN 510394) holding the retaining bracket (PN 461772) with a 1/4" open-end wrench. Remove the switch from the bracket by depressing the retaining clips on the switch. Remove the clear plastic voltage selector shield (PN 461773).

When reassembling the voltage switch, ensure that the label (PN 420615-08) is mounted onto the switch. Then, place the switch into the bracket with the 110V indicator towards the top of the bracket, which is the side with the hole, rather than the slot. Mount the bracket on the assembly plate with the hole and the 110V indicator towards the top of the plate. Wire the switch per the electrical schematic. With power disconnected, place the switch into the 110V position and check the continuity of the wires, then place the switch into the 220V position and check the continuity again. Reassemble the plate.

## CIRCUIT BREAKERS

The circuit breakers are located on the power inlet assembly plate, above the voltage selector switch (Fig. 55). Remove the six screws (PN 510160) holding the assembly plate with a 5/64" Allen wrench. Pull the assembly plate away from the rear panel assembly. Remove the two female wire terminals at each breaker that is being replaced. Note that the 10-amp circuit breakers (PN 830123) and 20-amp breakers (PN 830122) are attached with retaining rings, whereas the 1-amp breakers (PN 830138) are not. Remove the retaining ring if a 10-amp or 20-amp break-

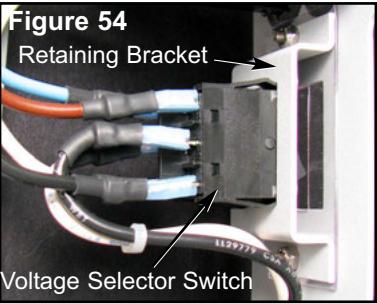
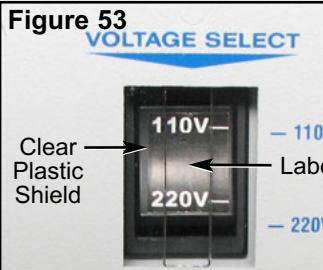


Figure 54  
Retaining Bracket  
Voltage Selector Switch

er is being replaced. Depress the retaining clips on the inboard side of the circuit breaker and push the breaker out through the front of the plate.

Reassemble the circuit breakers in the reverse order.

## AIR TANK RELEASE VALVE

The air tank release valve (PN 730010) is the toggle valve located on the bottom of the power outlet assembly plate, on the rear panel (Fig. 57). Remove the eight screws (PN 510160) holding the power outlet assembly plate with a 5/64" Allen wrench. Pull the assembly plate away from the rear panel. Remove the sleeve clamps (PN 730095) and tubing (PN AA-95G) from their fittings. Use two 9/16" open-end wrenches to remove the toggle valve from the assembly plate.

To reassemble the release valve, remove the fittings from the old valve with a 1/4" open-end wrench and attach to the new valve. Take care not to overtighten the plastic fittings. Remove the outboard nut from the toggle valve and turn the other nut inward until it is close to the body of the valve. Insert the valve through the plate from the inboard side with the lock washer resting against the back side of the plate. Reattach the front nut onto the valve from the front side of the plate and run it up the threads until just slightly beyond the end of the valve. Use a thin 9/16" open-end wrench to turn the nut snugly against the back side of the plate while holding the valve body with a 9/16-inch wrench. Ensure that the toggle is set in a horizontal working position.

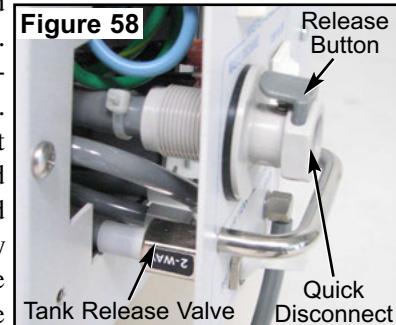


Figure 58  
Release Button  
Tank Release Valve  
Quick Disconnect

## WASTE OUTLET QUICK DISCONNECT FITTING

The waste outlet quick disconnect (PN 730352) is located directly above the air tank release valve on the rear power outlet assembly plate (Fig 57). Remove the eight screws (PN 510160) holding the power outlet assembly plate with a 5/64" Allen wrench. Pull the assembly plate away from the rear panel. Remove the tube (PN 730312) from the rear of the fitting, then remove the quick-disconnect with a 13/16" wrench.

Reassemble the quick disconnect in the reverse order with the release button positioned on the top side. Ensure that the notch on the gasket and quick-disconnect are in alignment with the notch in the power outlet assembly plate.

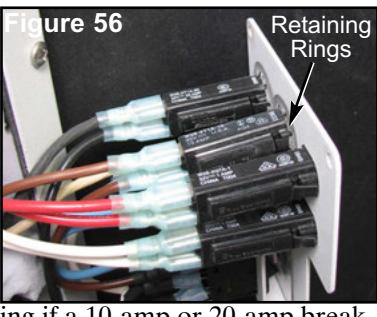


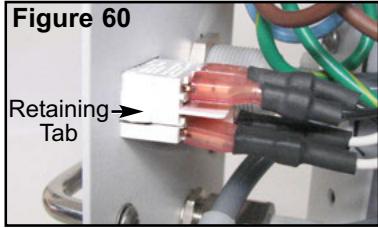
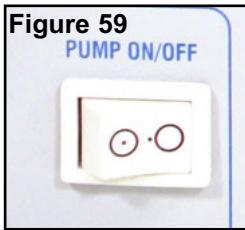
Figure 56  
Retaining Rings

## DISASSEMBLY - Continued

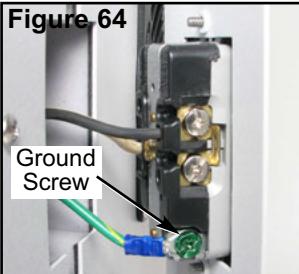
### WASTE PUMP POWER SWITCH

The waste pump power switch (PN 830108) is the white rocker switch located next to the waste quick-disconnect fitting on the power outlet assembly plate (Fig. 59). Remove the eight screws (PN 510160) holding the power outlet assembly plate with a 5/64" Allen wrench and pull the power outlet assembly plate away from the rear panel. Remove the four female wire terminals from the rear of the switch (Fig. 60). Depress the retaining tabs on the inboard sides of the switch and push the switch out through the front of the plate. Place the new switch into the rectangular opening in the plate from the front side of the assembly plate. Ensure that the Off side of the switch (marked with a dot outside the circle) is properly oriented with the PUMP OFF nomenclature on the plate.

Reassemble the pump power switch in the reverse order and refer to the electrical schematic for proper installation.



the eight screws (PN 510106) holding the power outlet assembly plate with a 5/64" Allen wrench and pull the assembly away from the rear panel. Remove the front cover (PN 850071) to the outlet with a standard flat-head screwdriver. Remove the two screws (PN 510160) holding the outlet with a 5/64" Allen wrench. Locate the two wire retaining screws (Fig. 64) and loosen with a #2 Phillips screwdriver until the two wires (PN 870308) can be removed. Remove the green ground screw with a #2 Phillips screwdriver or a 5/16" wrench.

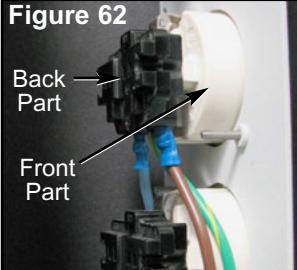
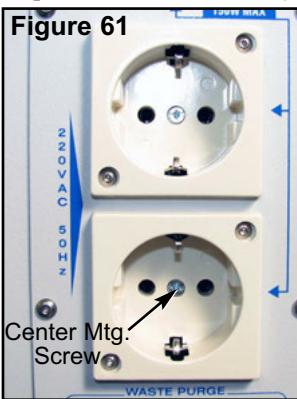


Reassemble the outlet in the reverse order. Refer to the electrical schematic for proper installation.

### 220 VOLT ACCESSORY OUTLETS

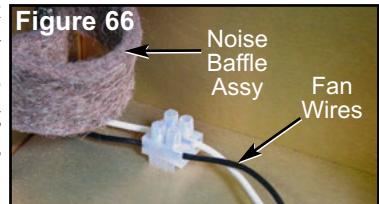
The 220 volt outlets (PN 840106) are the two European style outlets located in the center of the power outlet assembly plate (Fig. 61). Remove the eight screws (PN 510106) holding the power outlet assembly plate with a 5/64" Allen wrench and pull the assembly away from the rear panel. The outlets are comprised of two parts (Fig. 62): To remove the rear part, unscrew the center screw from the front side with a #1 Phillips screwdriver and pull the back part out of the socket from the rear. Remove the wiring (PN 870309) to the rear part of the outlet with a #2 Phillips screwdriver. Use a 1/16" Allen wrench to remove the front part of the outlet.

Reassemble the outlets in the reverse order, referring to the electrical schematic for the proper installation.



### REAR COOLING FAN

The rear cooling fan (PN 540012) is located in the rear panel assembly, below the waste compartment door (Fig. 65). Remove the four screws (PN 510691) holding the rear panel with a #2 Phillips screwdriver. Tilt the power input side of the rear panel outward to access the wires going to the circuit breakers. At the circuit breakers, disconnect only the eight female connectors from the eight wires coming from within the unit (it is not necessary to remove the four wires coming from the voltage selector). Swing the rear panel out farther to access the white 2-position connector block (PN 860244) located on the noise baffle assembly. At this connector, remove the two wires from the fan. Remove the four locking nuts (PN 510411) and screws (PN 510506) from the fan with a 3/32" Allen wrench and an 11/32" wrench. Remove the fan shield (540009) and fan.



Reassemble the cooling fan in the reverse order with the air flow indicator on the fan pointing toward the outside of the unit.

### WASTE COMPARTMENT LATCH

The waste compartment latch (PN 510678) is mounted onto the waste compartment door, which is located on the upper

### 110V ACCESSORY OUTLET

The 110V accessory outlet (PN 840105) is located in the rear of the unit, on the power outlet assembly (Fig. 63). Remove

rear of the unit. Open the door and remove the large nut on the rear of the latch with a 1-1/16" open-end wrench. Slip the large nut and lockwasher off the end of the latch, then from the front side, carefully remove the remaining latch mechanism through the hole in the door.

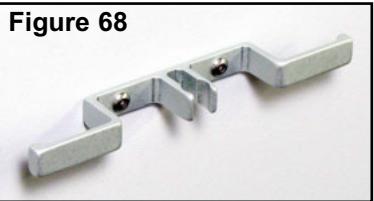
Reassemble the latch in the reverse order.



#### WASTE TUBE HANGER

The waste tube hanger (PN 500326) is mounted onto the waste compartment door, which is located on the upper rear of the unit. Remove the two screws (PN 510160) with a 5/64" Allen wrench and remove hanger.

Reassemble the hanger in the reverse order.



#### WASTE COMPARTMENT DOOR

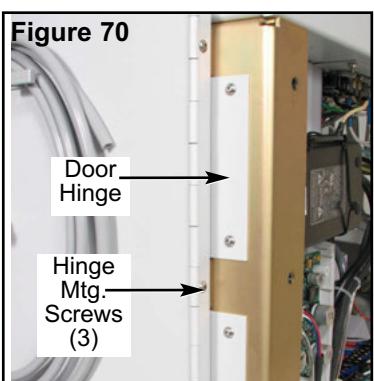
The waste compartment door (PN 461776) is located on the upper rear of the unit. Open the door and remove the four nuts (PN 510395) with a 5/16" wrench. Remove the door latch and waste tube hanger as described previously and place onto the new door.

Reassemble the door in the reverse order.



#### WASTE COMPARTMENT DOOR HINGE

Open the waste compartment door and remove the three screws (PN 510404) from the right side of door with a 5/64" Allen wrench (Fig. 70). Remove hinge (PN 461791). If necessary, remove other door components as described previously and reassemble in the reverse order.

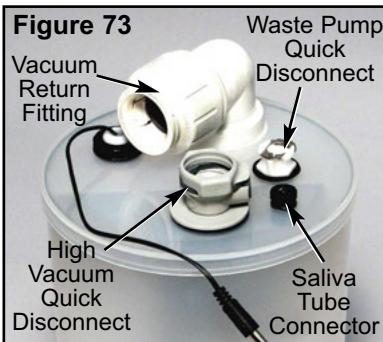
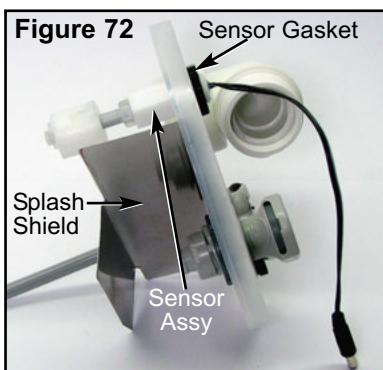
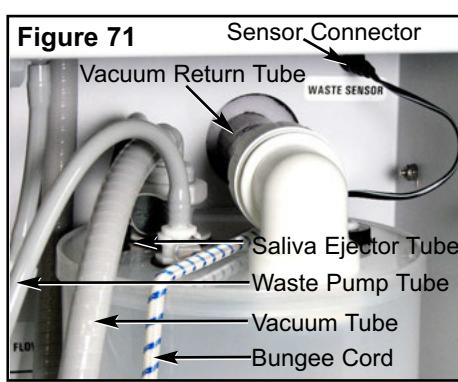


#### WASTE TANK SENSOR

Open the waste compartment door in the rear of the unit to access the waste tank (Fig. 71). Disconnect the sensor (PN 330555) wire connector from the jack (PN 860080) located on the waste compartment wall.

Disconnect and remove the front bungee cord. Disconnect the waste pump tubing from the small white quick disconnect by pressing on the metal locking ring. Disconnect the large high-vacuum tube from the gray quick-disconnect (PN 730354-08) by pressing on the large plastic ring. Disconnect the saliva ejector tubing from the small black quick disconnect by rotating the tube connector counterclock-wise and pulling it out of the quick-disconnect. Disconnect the large vacuum-return tube (PN 730608) by pushing the ring on the large white nut then pulling the waste tank assembly off the end of the tube adapter (PN 461872). Remove the waste tank assembly from the unit. Remove the lid from the waste container (PN 730229-06) (Fig. 72). Use a 3/4" open-end wrench on the sensor spacer under the lid and a 27mm wrench to remove the nut (PN 840015) on top of the lid. Carefully pull sensor assembly (PN 330555) through the hole in lid, from the underside.

Reassemble the sensor in the reverse order, ensuring that the gasket (PN 461011) is on the underside of the lid.



#### SALIVA TUBE CONNECTOR

The saliva tube connector (PN 730491) is the small black fitting in the top of the waste tank (Fig. 73). Remove with a 1/2" box-end wrench.

Reassemble with some RTV on the threads and wipe clean.

## DISASSEMBLY - Continued

### WASTE PUMP QUICK DISCONNECT

The waste pump quick-disconnect (PN 730516) is the white fitting with the metal locking ring (Fig. 73). Remove the nut on the underside of the waste tank lid with a 13/16" wrench. Pull the fitting out through the top of the lid. Remove the waste tube (PN AA-86G) and gasket (PN 461011).

Reassemble the quick disconnect, gasket, and tube in the reverse order.

### HIGH VACUUM QUICK DISCONNECT

The high vacuum quick-disconnect (PN 730354-08) is the large gray fitting with the plastic locking ring (Fig. 73). Remove the nut on the underside of the waste tank lid by hand or channel locks. Pull the fitting out through the top of the lid. Remove the gasket.

Reassemble quick-disconnect with the gasket, aligning the notch on the tank lid to the notches on the gasket and fitting.

### VACUUM RETURN FITTING

The vacuum return fitting (PN 730599-01) is the large white elbow fitting on the top of the tank lid (Fig. 73). Remove the nut from the underside of lid. Remove the elbow and spacer (PN 461819) from the lid. Remove excess RTV from the lid.

When reassembling the fitting, ensure that the spacer is under the fitting then reapply some RTV to the threads on the underside of the lid. Attach the nut and orientate the fitting approximately centered between the waste sensor and the high vacuum fitting. Ensure that the top nut is not overtightened to allow for the inner ring to move.

### SPLASH SHIELD

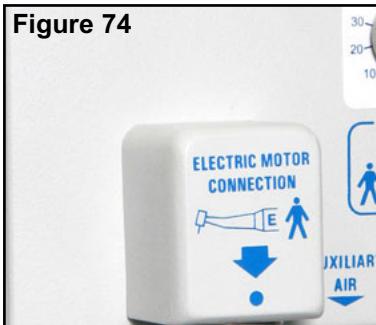
The splash shield (PN 461879) is on the underside of the waste tank lid (Fig. 72). Remove the nut to the high-vacuum fitting and pull the shield off.

Reassemble the shield in the reverse order, ensuring that the high vacuum fitting and gasket are aligned with the notch on the lid.

### AEU-5000 ELECTRIC MOTOR RECEPTACLE

The electric motor receptacle (PN 330557) is on the upper left side of the front panel, beneath the small protruding housing (PN 461886) (Fig. 74). Remove the cart's front, left, and right side panels as previously described. Follow the wiring from the motor receptacle to the 8-pin connector on the electric motor power board and remove the 8-pin connec-

Figure 74



tor (Fig. 42). Cut the cable ties holding the receptacle wire bundle to the other wires. Remove the four screws (PN 510650) holding the receptacle housing to the front panel (Fig. 75) with a #2 Phillips screwdriver. Pull the housing from the front panel and slide out the motor receptacle from the rear of the housing. Remove the sleeve clamps and tubing going to the receptacle. Pull the wire harness and connector through the hole in the front panel.

Reassemble the motor receptacle in the reverse order, ensuring that the dimple marker on the receptacle is positioned toward the front of the housing. Reattach the 8-pin connector to the electric motor power board and bundle the receptacle wiring with the other wires using a cable tie. Ensure that the electric motor interface cable is attached to the electric motor display board before attaching the front panel.

### AEU-5000 ELECTRIC MOTOR DISPLAY PANEL

Remove the front panel from the unit as previously described. Remove the four screws (PN 510650) from the inboard side of the electric motor display panel (Fig. 77) with a #2 Phillips screwdriver and remove panel sub-assembly. **IMPORTANT:** The electric motor display sub-assembly is not a user-serviceable component of the AMC-20CF system and should be returned to Aseptico if repairs are necessary.

### SCALER ADJUSTMENT POTENTIOMETER

The scaler potentiometer (part of PN 730500) is located on the front panel, between the electric motor receptacle and the electric motor control panel. Loosen the small setscrew on the side of the potentiometer knob with a 1/32" Allen wrench and remove knob (Fig. 78). Remove the front panel as previously described. Remove the three wires going from the potentiometer (Fig. 79) to the white 3-position connector (PN 860250) located on top of the

Figure 75



Figure 76

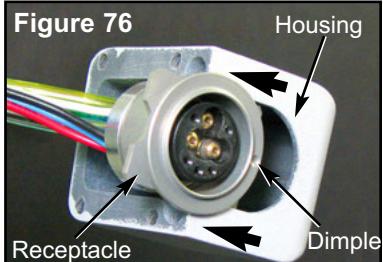


Figure 78



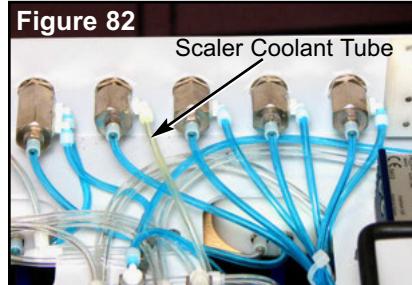
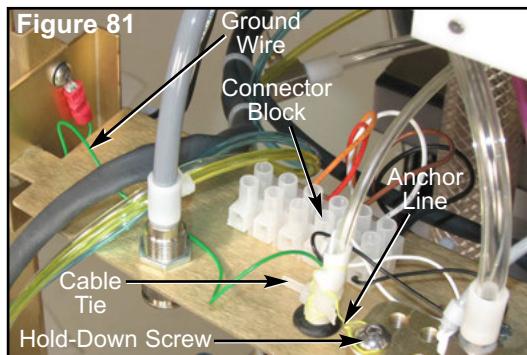
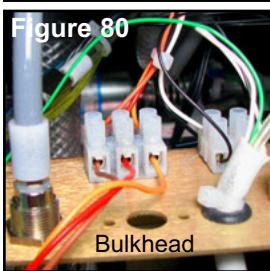
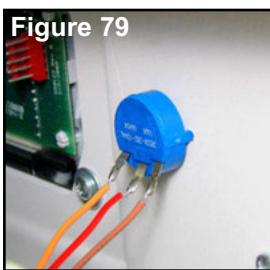
bulkhead. Remove the nut on the outboard side of the front panel with a  $\frac{1}{2}$ " socket. From the inboard side, remove potentiometer through the hole in the panel.

Reassemble the scaler potentiometer in the reverse order with the lock washer positioned against the inboard side of the front panel and the alignment pin on the potentiometer keyed into the hole in the cover. At the white connector on the bulkhead, color-match the three potentiometer wires to the brown, red, and orange wires in the connector. Ensure that the electric motor interface cable is attached to the electric motor display board before attaching the front panel.

## SCALER WAND

The scaler wand (part of PN 730500) is attached through the bulkhead, behind the front panel. Remove the front cover as previously described and pull cover forward to access the top of the bulkhead. Remove the ground wire mounting screw (PN 510404) from the side panel on the bulkhead (Fig. 81) with a  $\frac{3}{32}$ " Allen wrench. Remove the black and white scaler wires going to the white 2-position connector block (PN 860244) on the bulkhead. Cut the cable tie around the scaler cord, located just above the grommet. Remove the scaler tube anchor line from the hold-down screw (PN 510435) with a  $\frac{5}{32}$ " Allen wrench. On the upper shelf, disconnect the clear tube going from the scaler wand tube to the scaler coolant valve, at the valve (the fourth valve from the right when viewed from the inboard side - Fig. 82). From the bottom of the bulkhead, remove the scaler wand cord down through the grommet. Remove scaler wand.

Reassemble the scaler wand in the reverse order, adjusting the length of the wand cord to hang suspended off the floor and then trimming the excess cord sleeve clamp and/or water

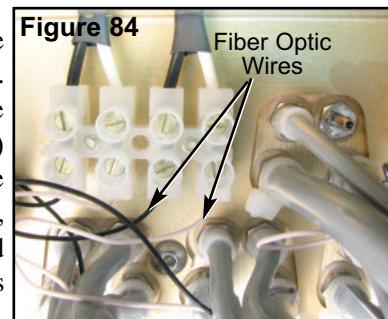
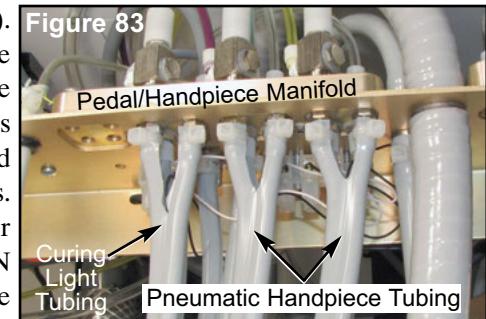


line. Trim the ground wire to the proper length and crimp on a #8 ring terminal. Wrap the cable tie around the scaler cord, just above the bulkhead grommet. Ensure that the tie is not over-tightened and does not restrict the flow of water. Attach the yellow anchor line to the hold-down screw. Attach the white and black wires from the wand to the matching colored wires on the two-position terminal block. Check to ensure that scaler water flow is appropriate before reattaching the front panel.

## PNEUMATIC HANDPIECE FIBER-OPTIC TUBING

The two sets of gray tubing (PN AA-19A-04T6) carrying the fiber-optic wires for the two pneumatic handpiece adapters are located on the bulkhead, behind the front panel. When viewed from the front of the unit, the two tubing sets are positioned under the right-hand side of the pedal/handpiece manifold (Fig. 83).

Cut the four cable ties holding the front tubing splices to their fittings and disconnect splices. Remove the four sleeve clamps (PN 730015) from the other four tubing splices and disconnect the splices from their fittings. At the 4-position white connector (PN 860250) located on the bottom side of the manifold (Fig. 84), remove the black and white fiber-optic wires from the connector.



To reassemble the pneumatic handpiece tubing, place the two handpiece adapters in their holders on the left-hand arm assembly and trim the supply hoses to their proper length so they are suspended off the floor. Splice the ends of the two tubes as before and attach the spliced ends to their appropriate fittings on the pedal/handpiece manifold with cable ties and/or sleeve clamps. Strip and tin the ends of the black and white fiber-optic wires before reattaching them to the white connector on the bottom side of the bulkhead. Refer to electrical schematic for proper installation.

## CURING LIGHT TUBING

The curing light tubing (PN 730625) is located on the bulkhead, behind the front panel. When viewed from the front of the unit, the tubing is the third tube from the right-hand side, underneath the pedal/handpiece manifold (Fig. 83). Cut the two cable ties holding the two tubing splices to their fittings and remove the tube from the manifold.

## DISASSEMBLY - Continued

Remove the black and white fiber optic wires from the white connector (PN 860244) under the manifold (Fig. 85).

To reassemble the curing light tube, place the tubing head in its instrument holder on the left-hand arm assembly and trim the tubing and wires so they hang suspended off the floor. Splice the end of the tube as before and attach the spliced ends to their respective fittings. Strip and tin the end of the black and white fiber-optic wires before reattaching to the white connector. Refer to the electrical schematic for the proper connections.

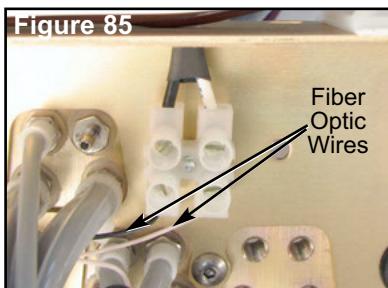


Figure 85

Fiber  
Optic  
Wires

## FOOT PEDAL AND TUBING

The tubing for the foot pedal (PN AA-43W) is attached to the rear center of the bulkhead behind the front panel. When viewed from the front of the unit, the tubing connects underneath the pedal/handpiece manifold, behind the handpiece tubing and curing light tubing (Fig. 86). Remove the two sleeve clamps (PN 730095) from the large tubes and the two sleeve clamps (PN 730015) from the small tubes and disconnect the foot-pedal tubing from the fittings on the pedal/handpiece manifold. Remove foot pedal.

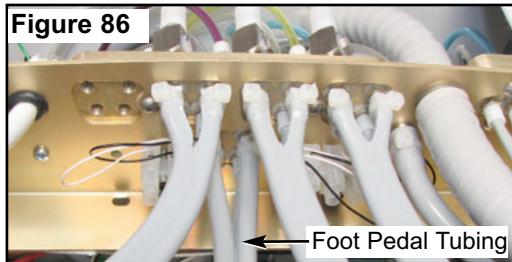


Figure 86

Foot Pedal Tubing

Reassemble foot pedal and tubing in the reverse order.

## SYRINGE AND SYRINGE TUBING

To replace the syringe (PN TA-90D), remove it from its holder and unscrew the bottom handle from the head assembly to access the tubing connections (Fig. 87). Remove the two sleeve clamps (PN 730015) and disconnect the tube (PN AA-85G) from the head. The other end of the tube is attached to the syringe block under the right side of the bulkhead (Fig. 88). Remove the two sleeve clamps (PN 730015) from the tube splices and remove syringe.

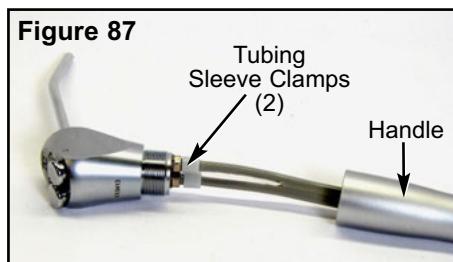


Figure 87

Tubing  
Sleeve Clamps  
(2)

Handle

To reassemble, cut approximately 66" of the syringe tubing and attach to the syringe with sleeve clamps. Place the syringe in its holder on the right-hand arm assembly and adjust the length of the tubing so that it suspends off the floor. Splice

the end of the tube as before and attach to the syringe block with two sleeve clamps. Verify that air comes out the syringe when the air button is depressed and that water sprays out when the water button is depressed.

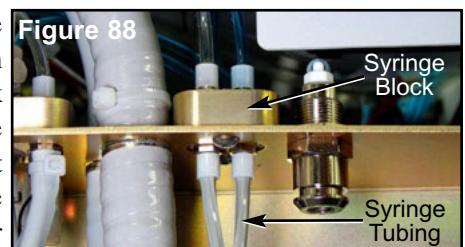


Figure 88

Syringe  
Block  
Syringe  
Tubing

## AUXILIARY WATER & AIR QUICK DISCONNECTS

The air and water quick disconnects (PN 730033) are located behind the front cover, on the far left and right ends, respectively, of the bulkhead (Fig. 89). Remove the front panel and pull toward the front to access the retaining nuts to the quick disconnect fittings. Disconnect the tube (PN

AA-94B) to the water fitting (PN 730011) and the tube (PN AA-95G) to the air fitting (PN 730073). Remove the quick disconnects with two 9/16" wrenches.

Reassemble the quick disconnects in the reverse order. When reinstalling the front panel, ensure that the electrical connection to the display board and scaler potentiometer are still intact.

## HANDPIECE PRESSURE GAUGE

The handpiece pressure gauge (PN 730132) is located behind the front panel on the right side, above the air tank (Fig. 90). Remove the sleeve (PN 730015), tube (PN AA-94C), fitting (PN 730062), and nylon gasket (PN 730074) going to the back of the gauge. Remove the locknuts (PN 510394) holding the gauge to the bracket (PN 461741) with a 1/4" open-end wrench.

Reassemble handpiece pressure gauge in the reverse order.

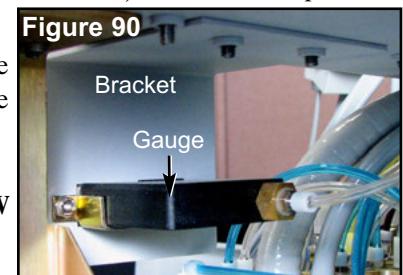


Figure 90

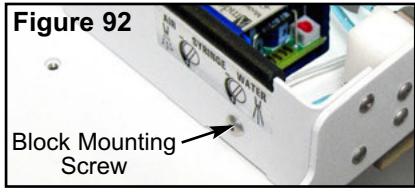
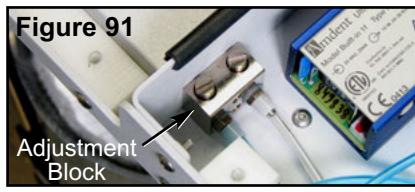
Bracket  
Gauge

## SYRINGE FLOW ADJUSTMENT BLOCK

The syringe flow adjustment block (PN 730022) is located on the upper shelf, on the right side, behind the divider wall (Fig. 91). Move the instrument arms to the left side of the unit. Remove the sleeve clamps (PN 730015) holding the blue

(PN AA-94B) and clear (PN AA-94C) tubes to the fittings, then remove the tubes. Remove the flow adjustment block mounting screw (PN 510404) on the outboard side of the divider wall with a 3/32" Allen wrench (Fig. 92). Pull the adjustment block up and remove the two blue and clear tubes to the block. Replace label (PN 420748-07) if necessary.

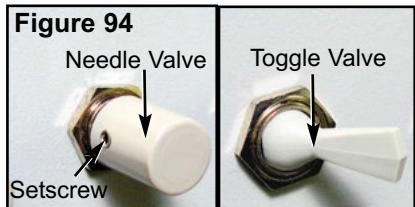
Reassemble the syringe flow adjustment block in the reverse order.



## SYSTEM CONTROL VALVES

The system control valves are on the upper shelf, on the right side of the unit (Fig. 93). They consist of two types of valves: needle-type adjustment valves and toggle-type on/off valves (Fig. 94). Remove the tubing to all valves being replaced. Remove all elbow fittings (PN 730011), straight fittings (PN 730062), and nylon gaskets (PN 730074) from valve bodies if necessary. To replace a needle valve, first loosen the setscrew on the adjustment knob (PN 850012) with a 1/16" Allen wrench, then remove knob. For all valves and toggles, use a 9/16" open-end wrench to remove outboard nut from the chassis wall. Pull needle and toggle valve bodies through the holes in the chassis wall, from the inboard side.

To reassemble a needle or toggle valve, first remove the mounting nut from the outboard end of the valve and turn the inboard nut toward the body of the valve slightly. Then, place the valve through the chassis hole from the inboard side with the lock washer placed against the inboard side of the chassis wall. Install the mounting nut onto the outboard end of the valve and run the nut up just a couple threads from the outboard end. Tighten the valve in place by holding the body and tightening the inboard nut against the chassis wall with a thin 9/16" open-end wrench. On toggle valves, ensure that the toggle is in its proper orientation with the nomenclature on the side panel. On needle valves, adjust the needle to fully

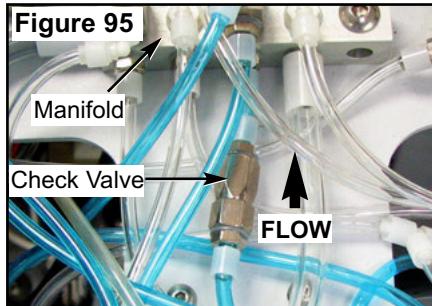


closed and attach the knob with the setscrew, allowing some clearance between the knob and body. Ensure that the knob does not bottom out against the valve.

## CHECK VALVE

The check valve (PN 730012) is located on the upper shelf, in line between the bottle-select toggle and the 4-port manifold (Fig. 95). Remove the sleeve clamps (PN 730015) and tubes (PN AA-94B) and remove the valve.

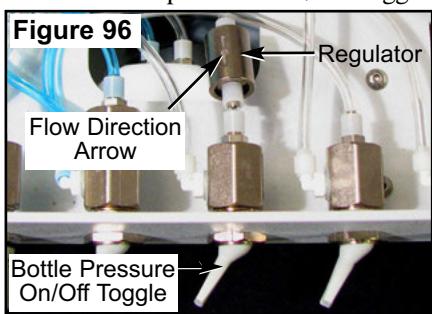
Reinstall check valve in the reverse order. Ensure that the flow direction is toward the manifold.



## 35 PSI FIXED REGULATOR

This regulator (PN 730521) is located on the upper shelf, in line between the manifold and bottle-pressure On/Off toggle (Fig. 96). Remove the sleeve clamps (PN 730015) and tubing (PN AA-94C).

Replace regulator, ensuring that the air direction arrow is pointing towards the toggle valve.

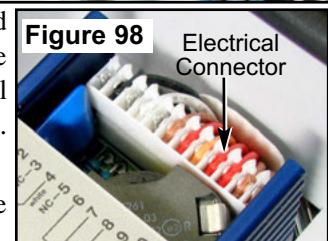
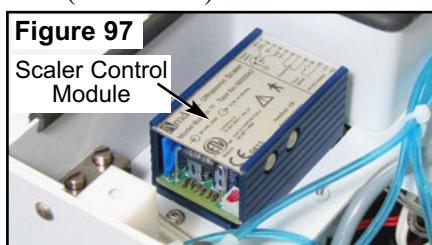


## SCALER CONTROL MODULE

The scaler control module (PN 730500) is located on the right side of the upper shelf, behind the divider wall (Fig. 97).

Remove the two screws (PN 510530) from under the chassis with a #1 Phillips screwdriver. Lift the module and slide back the top cover on the module to remove the electrical connector to the module (Fig. 98).

Reassemble the control module in the reverse order.



## DISASSEMBLY - Continued

### FIBER OPTICS MODULE

The fiber optics module (PN 730623) is located on the rear left side of the upper shelf (Fig. 99). Disconnect the sleeve clamps (PN 730015) and the gray (PN AA-94LG), purple (PN AA-94P), and yellow (PN AA-94TY) tubes to the module. Disconnect the six black and white wires with a standard jeweler's screwdriver. Remove the four mounting screws (PN 510160) with a 5/64" Allen wrench. Remove module.

The fiber optic transformer (part of module, PN 730623) is located on the left side of the upper shelf, behind the divider wall. Remove the transformer from the receptacle. Remove the two wires going to the optics module with a jeweler's screwdriver.

Reassemble fiber optics module and transformer in the reverse order, referring to the plumbing and electrical schematics for proper installation.

### FIBER OPTIC TRANSFORMER RECEPTACLE

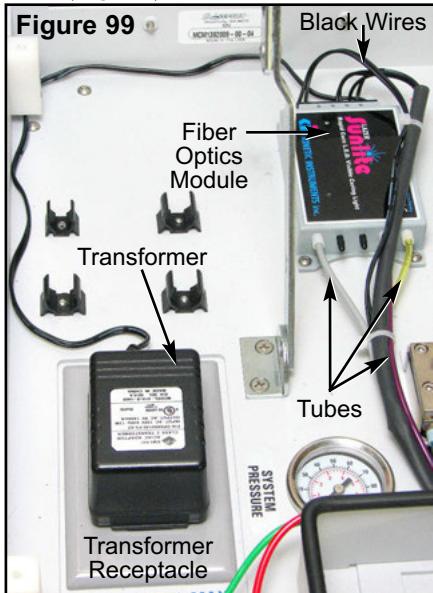
The fiber optic transformer receptacle (PN 840105) is located on the left side of the upper shelf, behind the divider wall (Fig. 99). Remove the fiber-optics transformer from the socket. Remove the receptacle cover screw and plate (PN 850071) with a standard screwdriver. Remove the receptacle mounting screws (PN 510160) with a 5/64" Allen wrench.

Open the left-side panel of the cart to remove the two wires from the receptacle with a #2 Phillips screwdriver. Remove the green/yellow ground wire with a #2 Phillips screwdriver or a 5/16" wrench. From the top side, pull the receptacle through the hole. Remove mounting plate (PN 461771-01) and four nuts (PN 510395) if necessary.

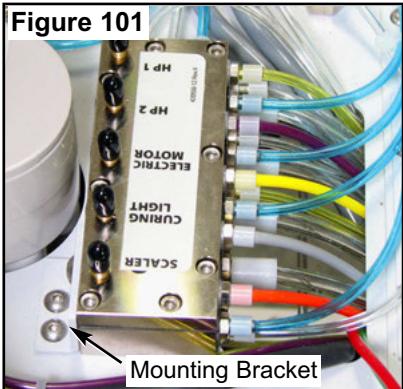
Reassemble the receptacle in the reverse order, referring to the electrical schematic for proper installation.

### QUIN HANDPIECE BLOCK

The quin block (PN 730621) is located directly behind the instrument arms on the upper shelf (Fig. 101). Remove the



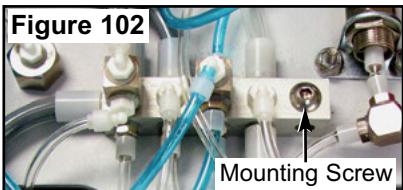
screw (PN 510404) from the bracket (PN 510256) to the block with a 1/8" Allen wrench. Remove all the sleeve clamps (PNs 730015 & 730095) and tubes from the block. Remove bracket and mounting screws (PN 510404) with a 3/32" Allen wrench if necessary.



Reassemble the quin handpiece block in the reverse order, referring to the plumbing schematic for proper installation. Adjust the handpieces to their proper pressures.

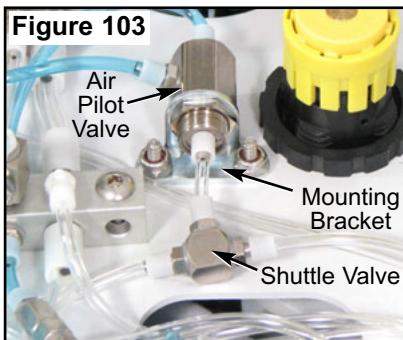
### MANIFOLD 4-PORT ASSEMBLY

The manifold 4-port assembly is located on the upper shelf, near the right side of the quin block (Fig. 102). Remove all sleeve clamps and tubes from the assembly block. Remove mounting screw (PN 510423). Replace assembly if necessary.



### AIR PILOT VALVE

The air pilot valve (PN 730019) is located on the upper shelf, near the right rear corner of the quin block (Fig. 103). Disconnect the sleeve clamps (PN 730015), the blue tubes (PN AA-94B) and the clear tube (PN AA-94C) going to the valve. Use two 9/16" wrenches to remove the mounting nut from the valve then remove the valve from the bracket (PN 730245). Remove the two fittings (PN 730062) and nylon gaskets (PN 730074) from the valve.



Reassemble the pilot valve in the reverse order, attaching the fittings to the new valve. Refer to plumbing schematic for the proper installation.

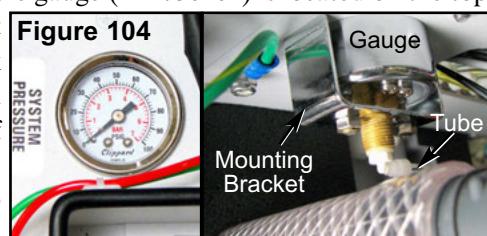
### SHUTTLE VALVE

The shuttle tee valve (PN 730016) is located on the upper shelf (Fig. 103), attached to the clear line from the air pilot and the flush toggle valve. Remove the sleeve clamps (PN 730015) and tubes (PN AA94C) at the valve.

Reassemble the shuttle valve in the reverse order, referring to the plumbing schematic for the proper installation.

## SYSTEM PRESSURE GAUGE

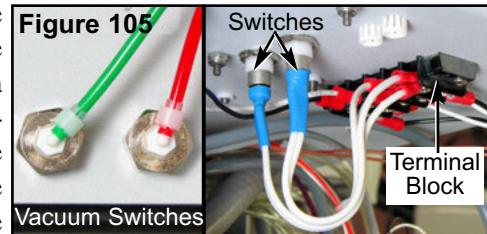
The system pressure gauge (PN 730101) is located on the top shelf, to the left of the quin block (Fig. 104). From the underside of the shelf, remove the sleeve clamp (PN 730015) and tube (PN AA-94C) going to the gauge. Remove the nuts and bracket (part of 730101) with a 5/32" wrench. Remove the gauge from the top side.



Reassemble the pressure gauge in the reverse order.

## VACUUM SWITCHES

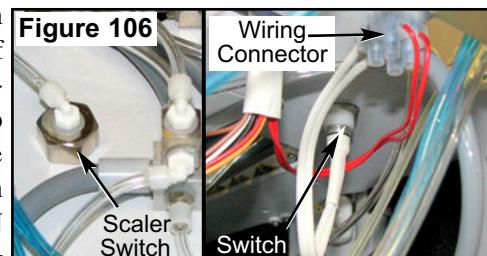
The two vacuum switches (PN 830137) are located on the left side of the top shelf, directly behind the divider wall (Fig. 105). On the underside of the top shelf, use a #2 Phillips screwdriver to remove the two white switch wires at the terminal block, which is mounted under the front left side. On the top of the shelf, remove the sleeve clamp (PN 730096) and the green (PN AA-94G) or red (PN AA-94R) tubing to the switch being replaced. Then, remove the switch with two 9/16" wrenches. Remove the fitting (PN 730011) and replace onto the new switch.



Reassemble the vacuum switches in the reverse order, referring to the electrical schematic for proper installation.

## SCALER SWITCH

The scaler switch (PN 730031) is located on the right side of the upper shelf, between the quin block and the scaler module (Fig. 106). On the underside of the top shelf, disconnect the two white wires at the white 2-position connector (PN 860244) coming from the switch. On the top side of the upper shelf, remove the sleeve clamp (PN 730015) and tube (PN AA-94C) to the switch. Remove the switch with two 9/16" wrenches. Remove wiring connector and mounting screw (PN 510088) on underside of shelf, if necessary.



Reassemble the scaler switch in the reverse order.

## CENTRAL VACUUM CANISTER

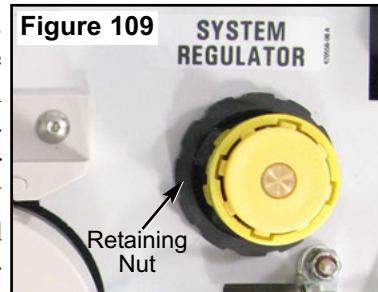
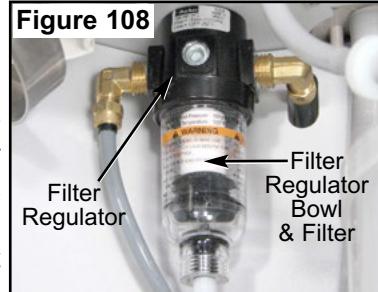
The central vacuum (PN AA-290) is located behind the quin block on the upper shelf (Fig. 107). Remove the tubes (PN AA-83A) from the bottom of the canister. Remove the holding screws (PN 510404) and bracket (part of AA-290). Replace canister if it becomes clogged.

Reassemble in the reverse order.



## FILTER/REGULATOR

The filter/regulator (PN 730598) is located behind the amalgam separator (PN 730595-01), or amalgam bypass filter (PN 730615), in the waste compartment (Fig. 108). Open the waste compartment door and remove the amalgam separator. Remove the drain tube (PN AA-95G) from the bottom of the filter/regulator. Remove the other two tubes going to the regulator with a 7/16" open-end wrench. Remove the filter/regulator by removing the retaining nut on the top side of the upper shelf (Fig. 109) and then pulling the filter/regulator down through the waste compartment. (NOTE: The latter red retaining nut (PN 710712) has been replaced with a black nut and a yellow cap on newer style filter/regulators.) If necessary, remove pipe elbows (PN 730329) from filter/regulator.



Reassemble the filter/regulator in the reverse order. Readjust the system pressure to 80 PSI on the system gauge.

## FILTER/REGULATOR FILTER

Open the waste compartment door and remove the amalgam separator (PN 730595-01) or bypass filter (PN 730615). Remove the drain tube (PN AA-95G) from the bottom of the filter/regulator bowl (Fig. 108). Unscrew the bowl and remove. Unscrew the filter (part of filter/regulator) and remove and replace if clogged.

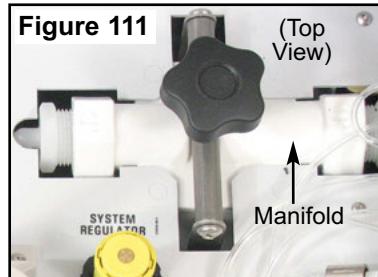
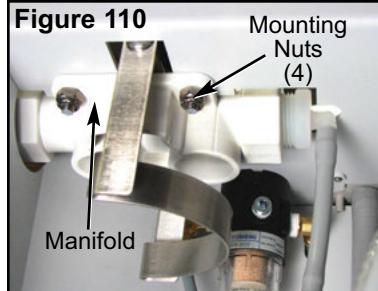
Reassemble the filter in the reverse order.

## DISASSEMBLY - Continued

### AMALGAM MANIFOLD

Open the waste compartment door. Remove the amalgam separator (PN 730595-01) or bypass filter (PN 730615). Remove the two tubes (PN AA-86G) going to the amalgam manifold (PN 730596-01): one from the waste container and the other to the waste pump. Remove the four nuts (PN 510296) on the underside of the top shelf (Fig. 110) with a 7/16-inch socket. To remove the manifold from the upper shelf (Fig. 111), tilt the manifold slightly and pull it down through the waste compartment. If necessary, remove fittings (PN 730613) on ends of manifold.

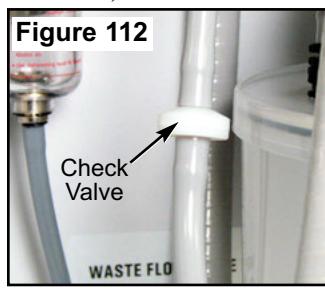
Reassemble the amalgam manifold in the reverse order.



### WASTE LINE CHECK VALVE

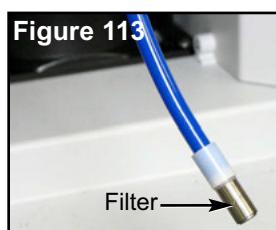
The waste line check valve (PN 730634) is located in the waste compartment, in line between the waste container and the amalgam separator (Fig. 112). Disconnect the two tubes (PN AA-86G) to the check valve.

Reassemble the check valve in the reverse order, referring to the plumbing schematic for proper orientation.



### WATER FILTERS

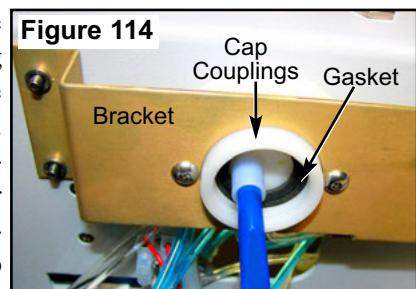
The water filters (PN 730326) are located at the ends of the blue tubes (PN AA-95B) in the two water bottles (PN 730631-01) (Fig. 113). Depressurize the water bottles and remove them and the water bottle caps. Loosen the four sleeve clamps (PN 730095) from tops and bottoms of the blue tubes (PN AA-95B). Unscrew the filters and gaskets (PN 730074) from the fittings (PN 730073) on the ends of the tubes. Use compressed air from the top end of the filter to unplug the screen, or replace the filters with new ones.



### WATER BOTTLE CAP COUPLING GASKETS

The water bottle cap coupling gaskets (PN 730473) are located inside the rims of the two white cap couplings (PN 461566)

(Fig. 114). Depressurize the water bottles using the bottle pressure release toggle switch. Unscrew the water bottles, complete with their caps, from the cap couplings on the unit. Slip the water bottles off their water tubes and set aside. Reach up into the cap couplings and pull the black gasket from each cap coupling.



Reassemble in the reverse order with new gaskets.

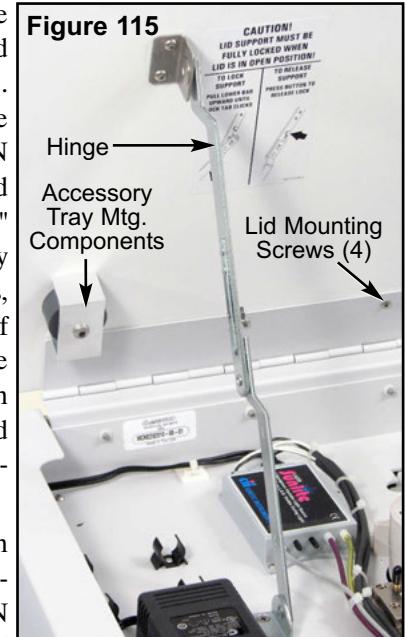
### WATER BOTTLE CAP COUPLINGS

The water bottle cap couplings (PN 461566) are attached to a bracket (PN 461733) under the right side of the top shelf (Fig. 114). Remove the two water bottles as previously described. Remove the two sleeve clamps (PN 730095) from the top of the two blue tubes (PN AA-95B), then remove the tubes. Remove the six fasteners (PN 510160) holding the bracket with a 5/64" Allen wrench. Remove the four fasteners (PN 510404) holding the cap couplings with a 3/32" Allen wrench and remove the cap couplings. Remove the fittings (PN 730062), gaskets (PN 730074), and tubes (PN AA-95B) and replace onto the new cap couplings.

Reassemble the cap couplings with new gaskets in the reverse order. Refer to the plumbing schematic for the proper installation.

### TOP LID LOCKING HINGE

The locking hinge (PN 510687) is located on the upper shelf and connects to the underside of the top lid (PN 461718) (Fig. 115). Open the top lid. Remove the two screws (PN 510545) on the upper lid angle bracket with a 3/32" Allen wrench. Gently lower the lid backwards, against the back side of the unit. Remove the screws (PN 510533) on the upper shelf and remove the hinge assembly.



Reassemble the hinge in the reverse order, ensuring that the washer (PN 510019) is positioned between the bracket (PN 461875) on the lid and the hinge. Reattach a new label (PN 420556-10) onto the new hinge.

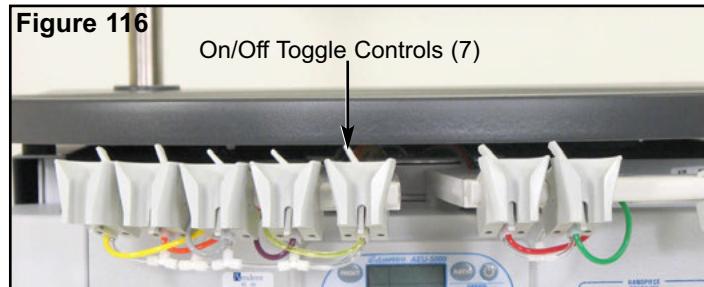
## TOP LID

Open the top lid (PN 461718) and remove the locking hinge as previously described (Fig. 115). Pivot the lid to a vertical position and support it while removing the seven mounting screws (PN 510506) with a 3/32" Allen wrench.

Remove the accessory tray components and reinstall them onto the new lid. Reassemble the new lid in the reverse order. Attach a new label (PN 420715-02) to the underside.

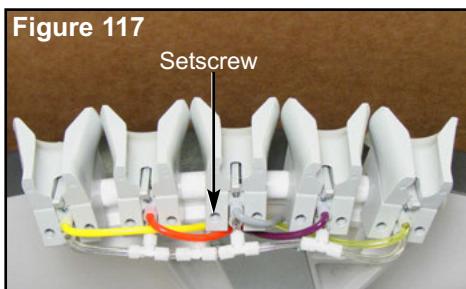
## INSTRUMENT HOLDERS

Seven instrument holders (PN AA-59G) with on/off toggle controls are located at the ends of the two rotating arms (Fig. 116). An eighth holder (PN-68G), without an on/off toggle, is located on the right-hand end of the right arm. Disconnect the tubing going to the specific holder that needs to be replaced. Back out the setscrews on the bottom of the hold-



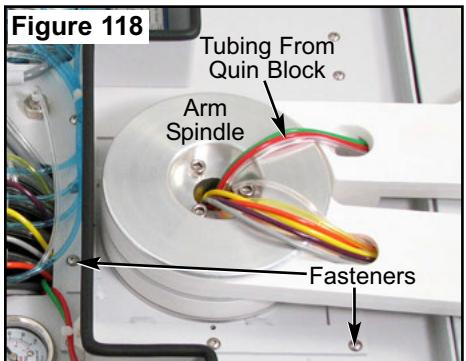
ers with a 3/32" Allen wrench (Fig. 117). Remove the holders from the arms.

Reassemble the holders in the reverse order. Refer to plumbing schematic for proper installation.

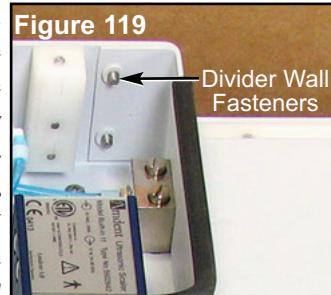


## ARM ASSEMBLY

The arm assembly is located on the upper shelf (Fig. 118). Disconnect the tubing from the arm assembly to the quin block, manifold, and vacuum switches by following the plumbing schematic. Remove the two fasteners (PN 510404) near the center of the divider wall (PN 461735) that connect the wall to the arm assembly mounting plate (PN 461736) with a 3/32" Allen wrench. Remove the four fasteners (PN 510160) holding the sides of the divider wall with a 5/64" Allen wrench (Fig. 119). Remove



the remainder of the fasteners to the arm assembly mounting plate with a 3/32" Allen wrench. Lift the divider wall and remove the arm assembly from the upper shelf. To remove any component of the arm assembly, remove the three fasteners (PN 510692) and nuts (PN 510296) at the center of the rotating spindle with a 3/16"



A 11 e n wrench and a 7/16" w r e n c h (Fig. 118). To remove the left and right tubing

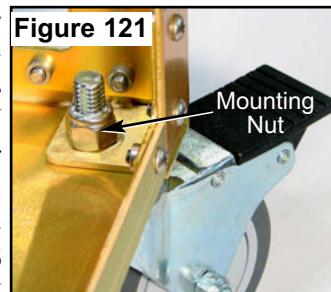
arm covers (PNs 461863 & 461862, respectively) on the bottoms of the arms, loosen all eight screws (PN 510650), then remove only the two front screws with a #2 Phillips screwdriver. Slide the covers forward and lift them away to access the tubes beneath (Fig. 120).

Reassemble the arm assembly in the reverse order, referring to the plumbing schematic for proper installation. If necessary, replace the instrument ID labels (PN's 420888 & 420889) on the left and right arms, respectively.

## CASTERS

Support the corner of the chassis where the caster is to be removed. Use two 3/4" wrenches and remove the caster nut (PN 510676) from the inside corner of the chassis base (Fig. 121). Lift the corner to remove the caster (PNs 730607 or 730606 locking) and flat washers (PN 510675).

Reassemble in the reverse order. Ensure that there are two flat washers between the caster and the base.



## TUBING

Refer to the plumbing diagram for the approximate length and part number of the tube to be replaced.

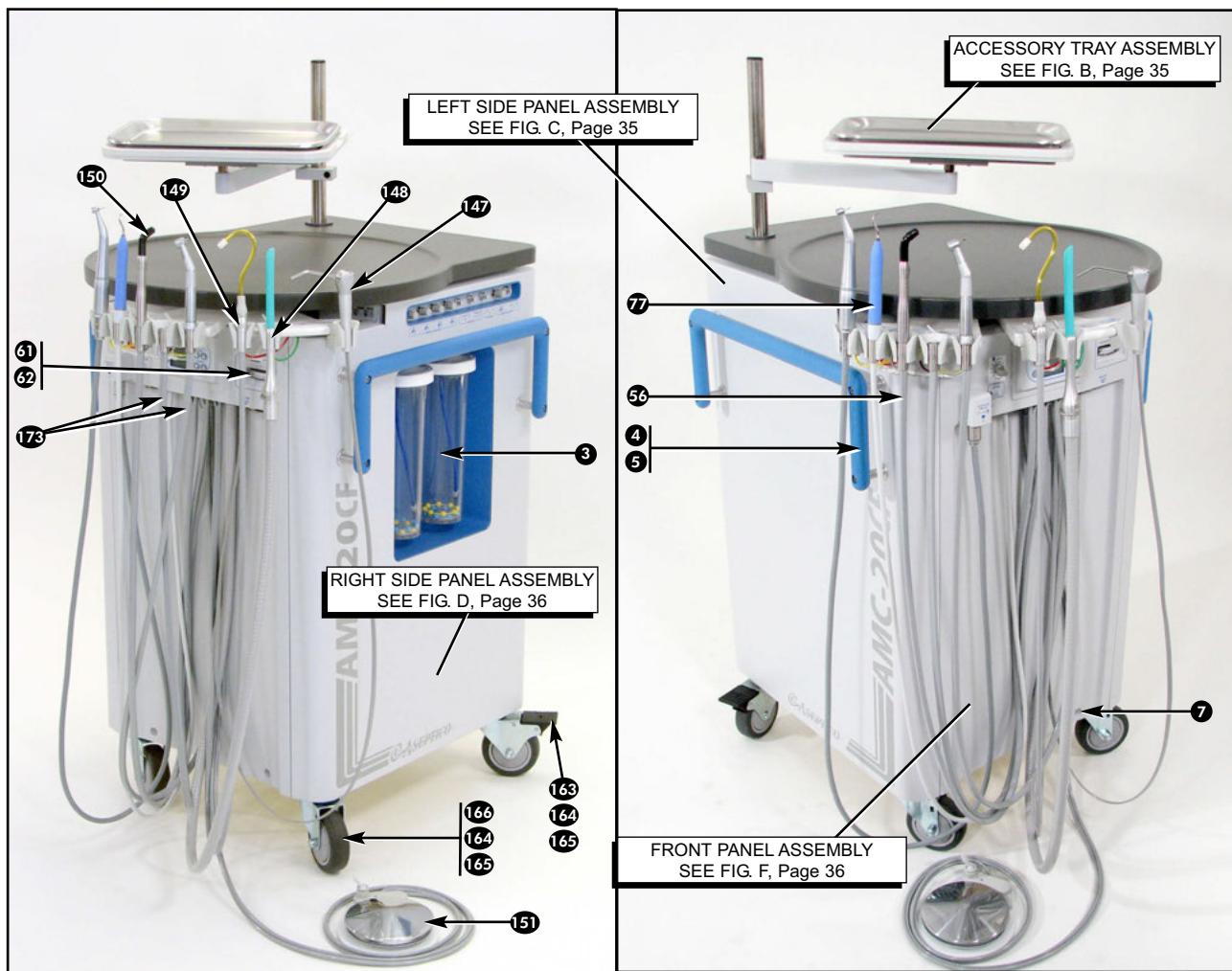
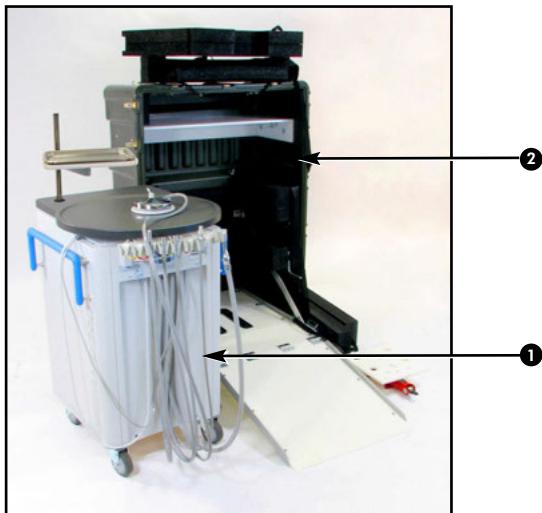
## WIRING

Refer to the electrical schematic for the proper size and length of the wire to be replaced.

**THIS COMPLETES THE DISASSEMBLY PROCEDURE FOR THE AMC-20CF DENTAL SYSTEM.**

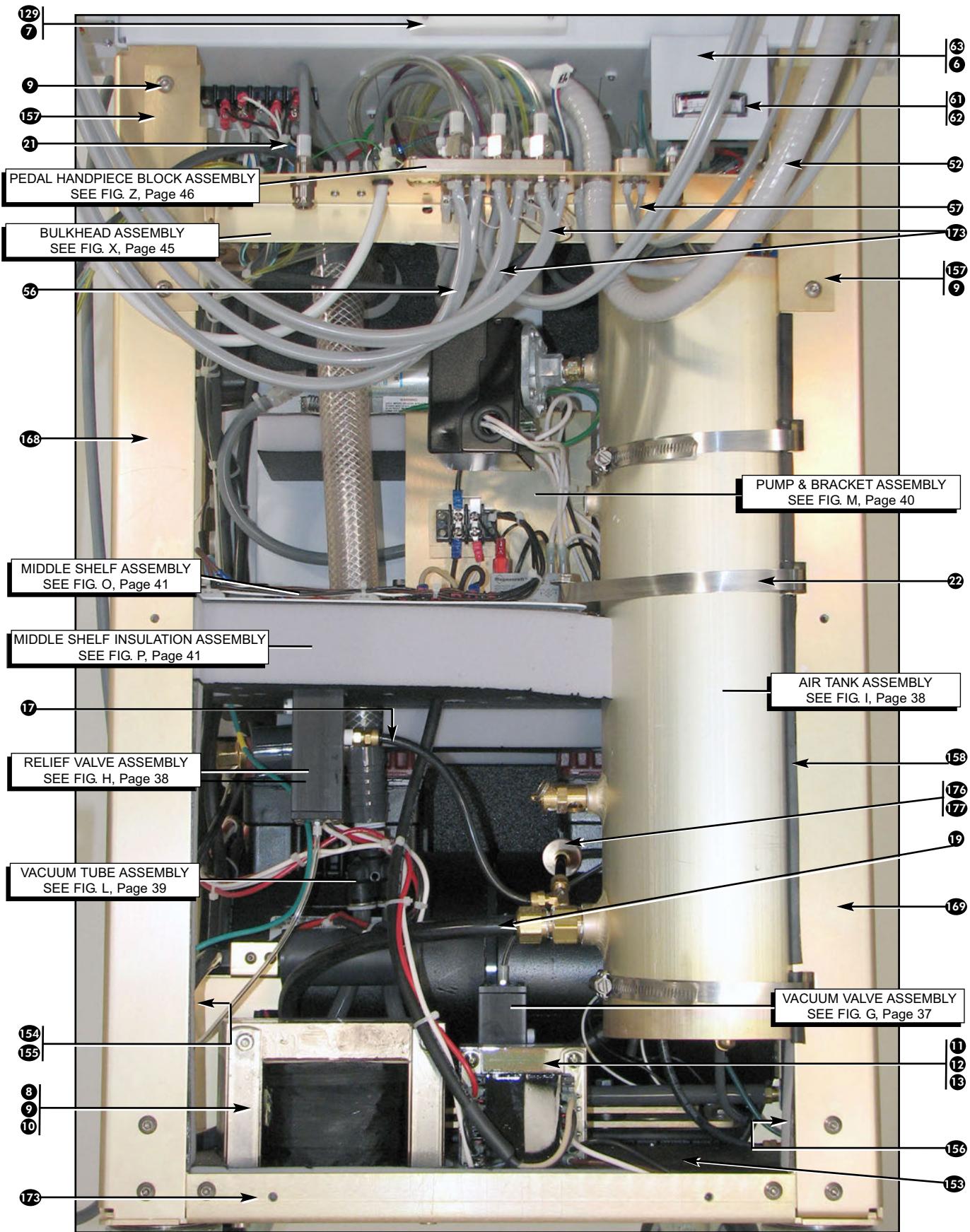
## FINAL ASSEMBLY PARTS LIST

Figure A (Sheet 1 of 11)



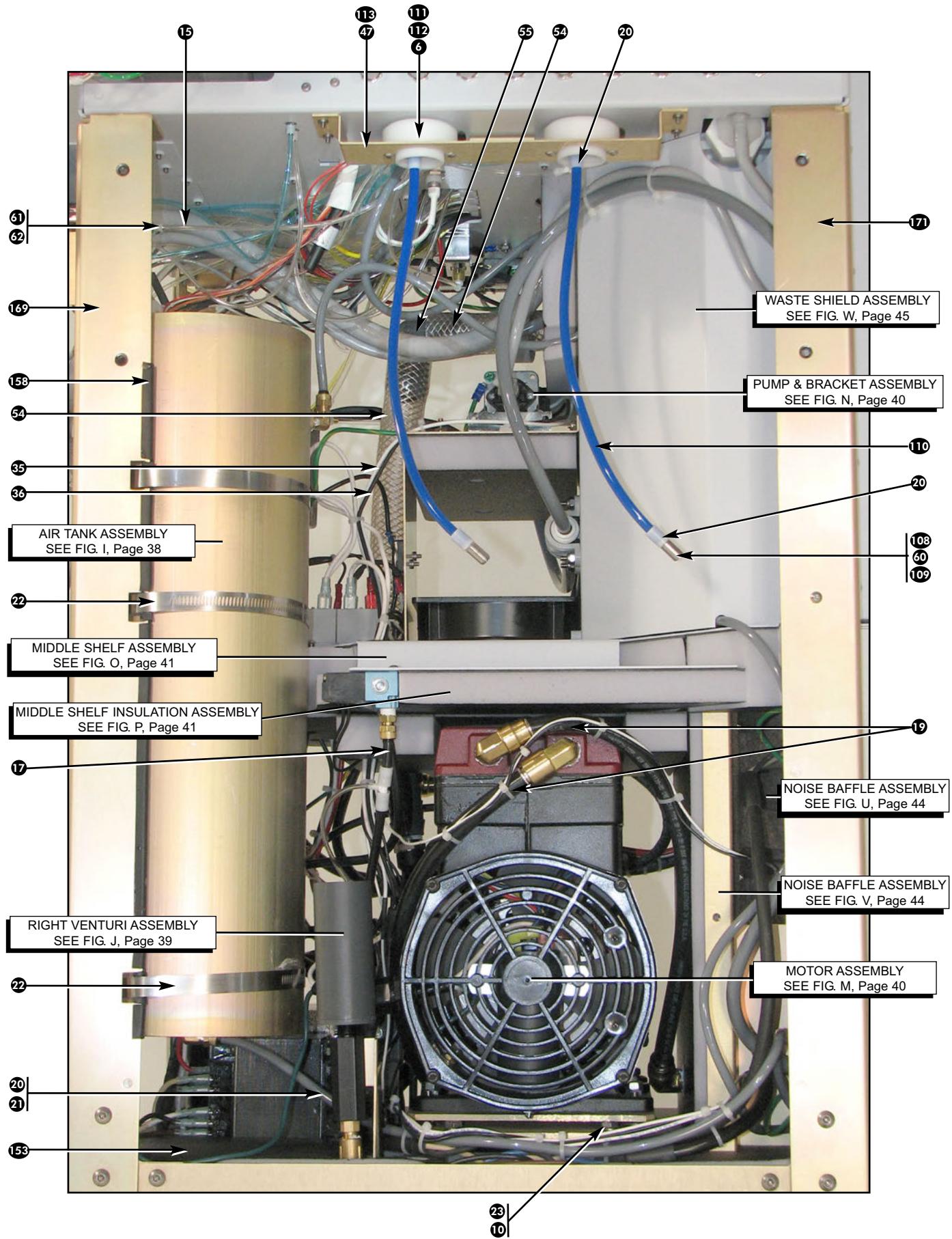
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 2 of 11 - Front View)**



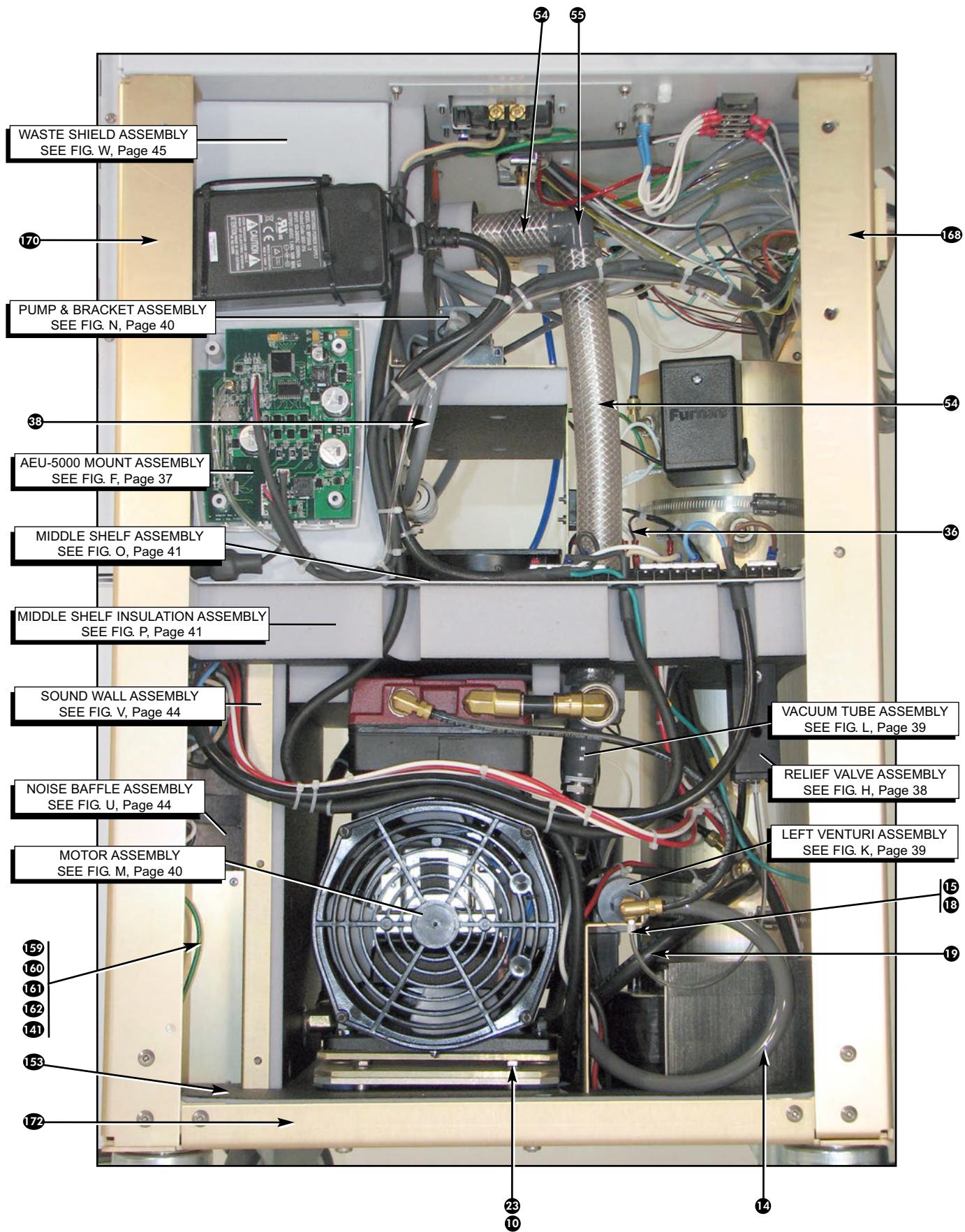
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 3 of 11 - Right Side View)**



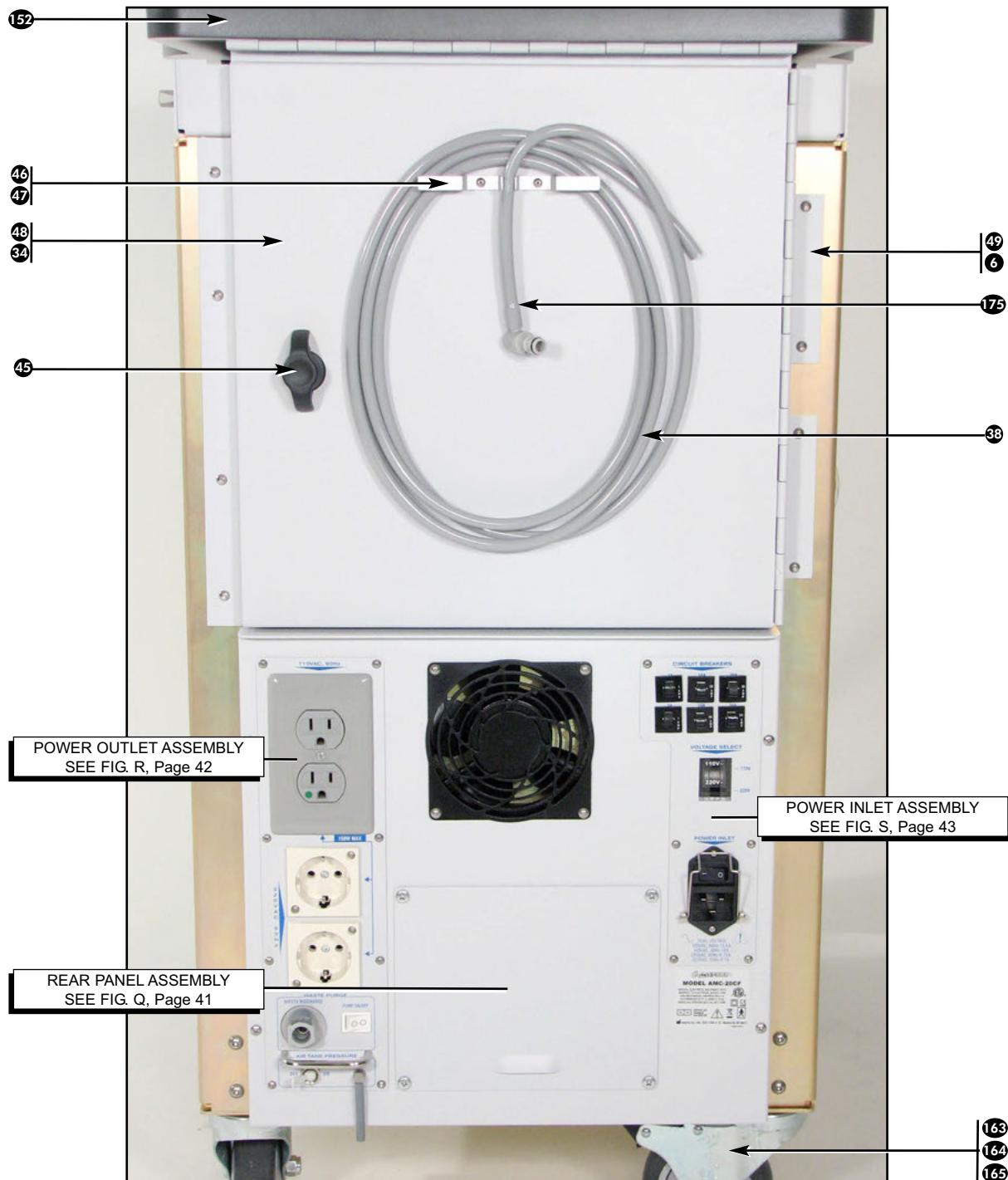
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 4 of 11 - Left Side View)**



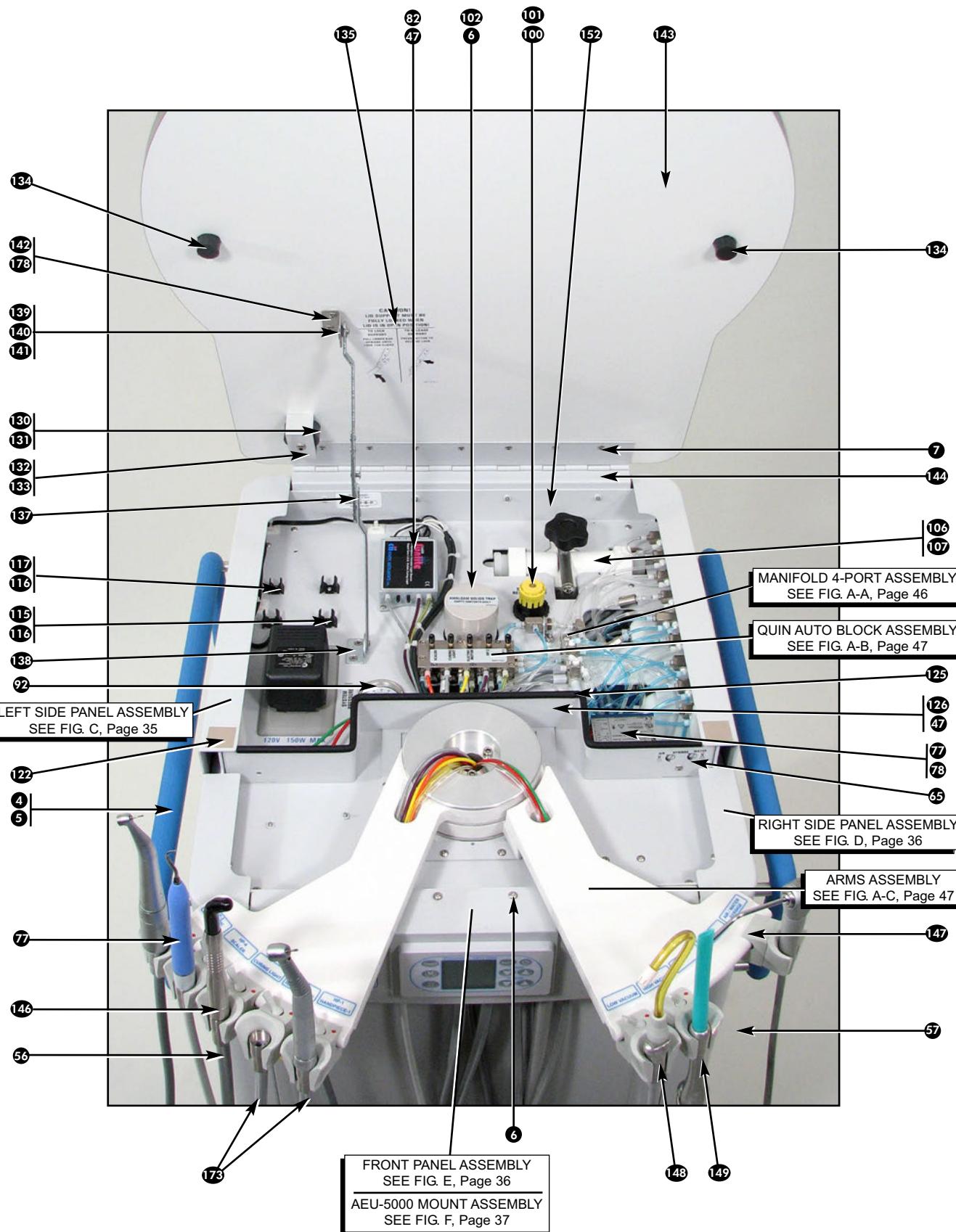
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 5 of 11 - Back View)**



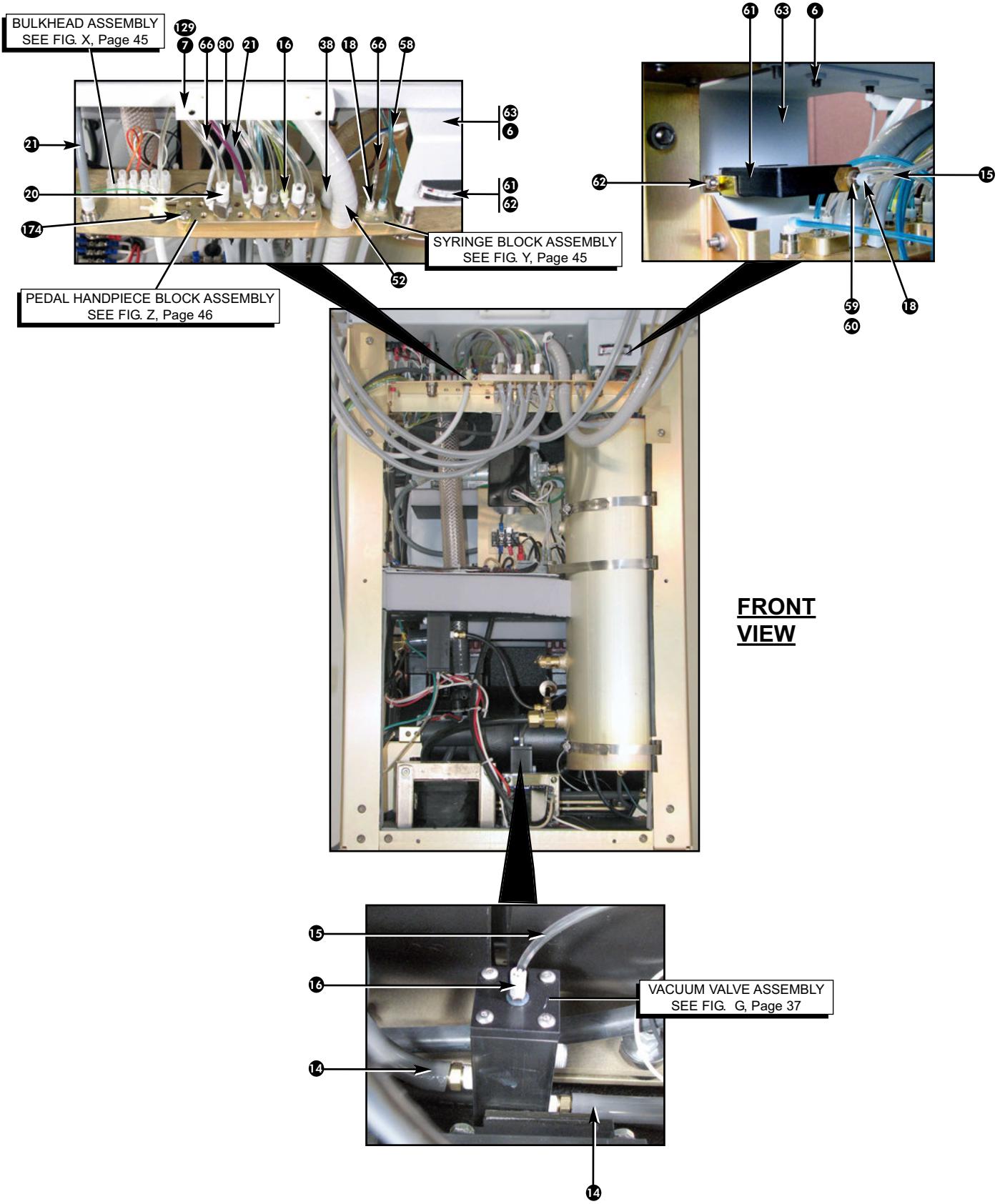
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 6 of 11 - Top View)**



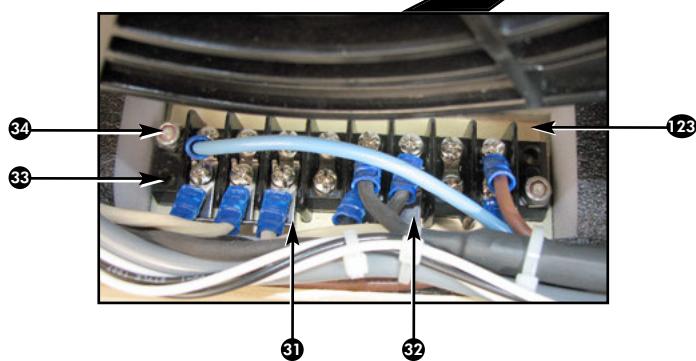
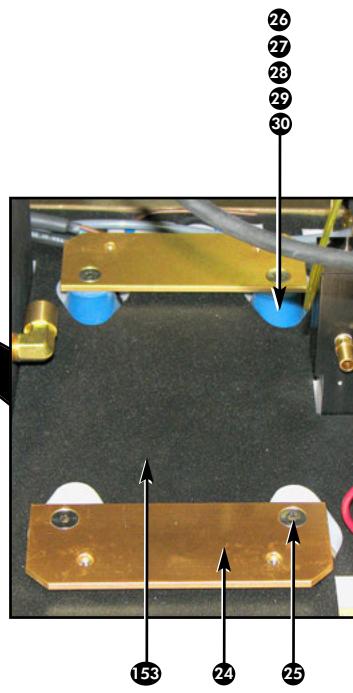
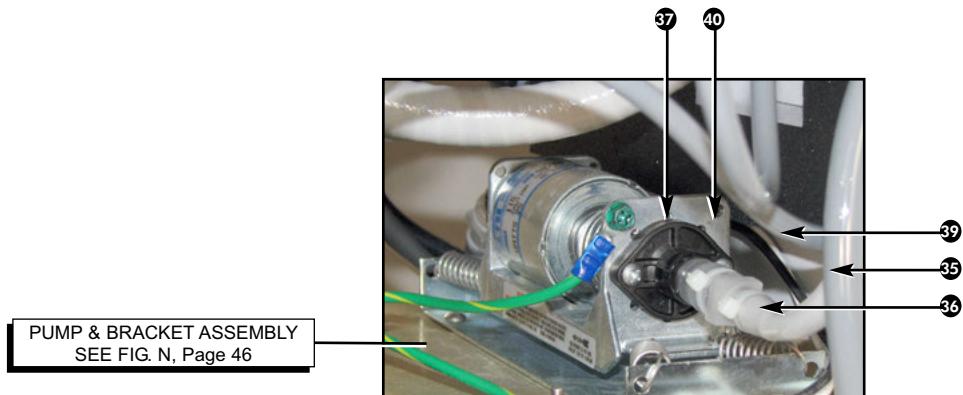
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 7 of 11 - Front View)**



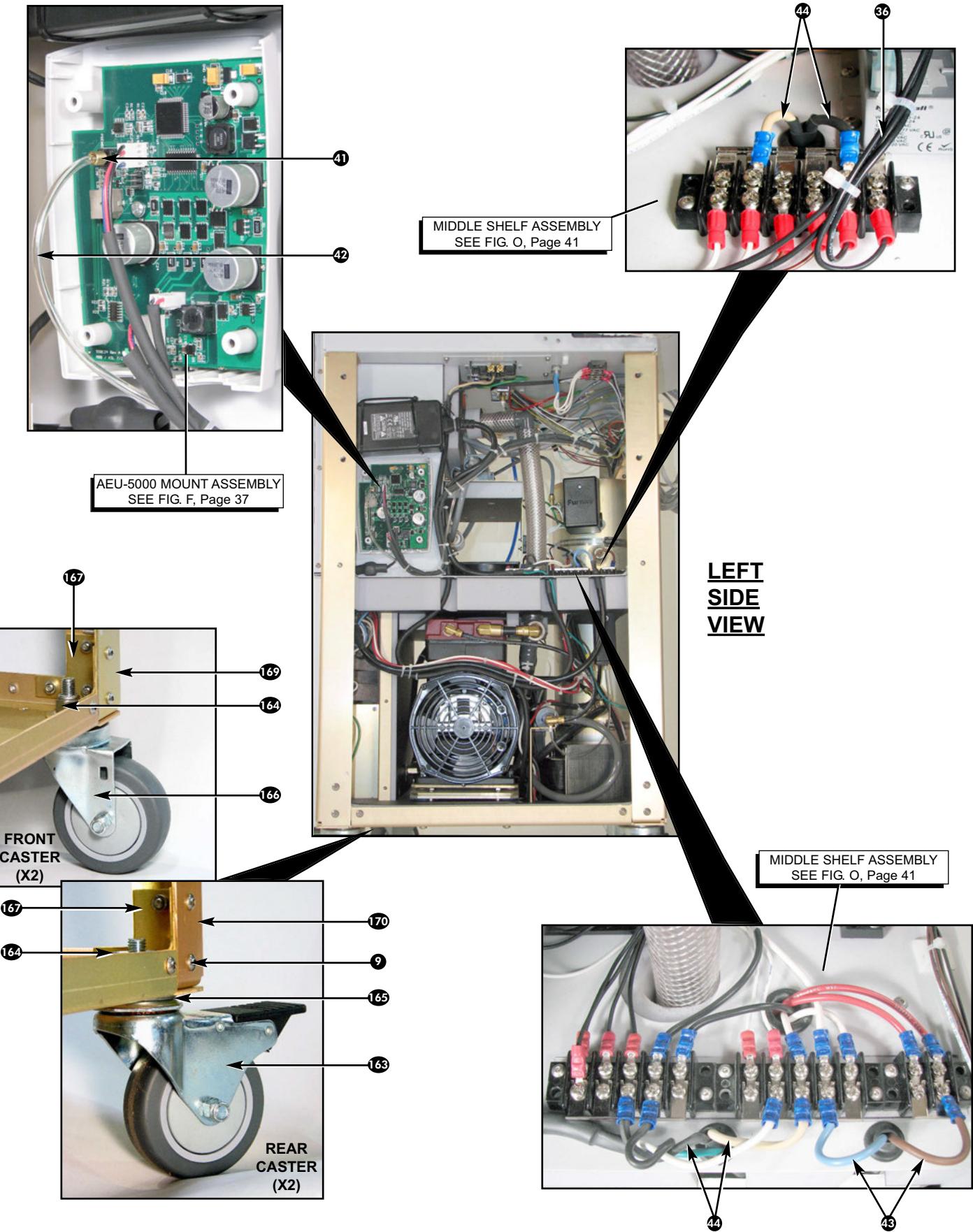
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 8 of 11 - Right Side View)**



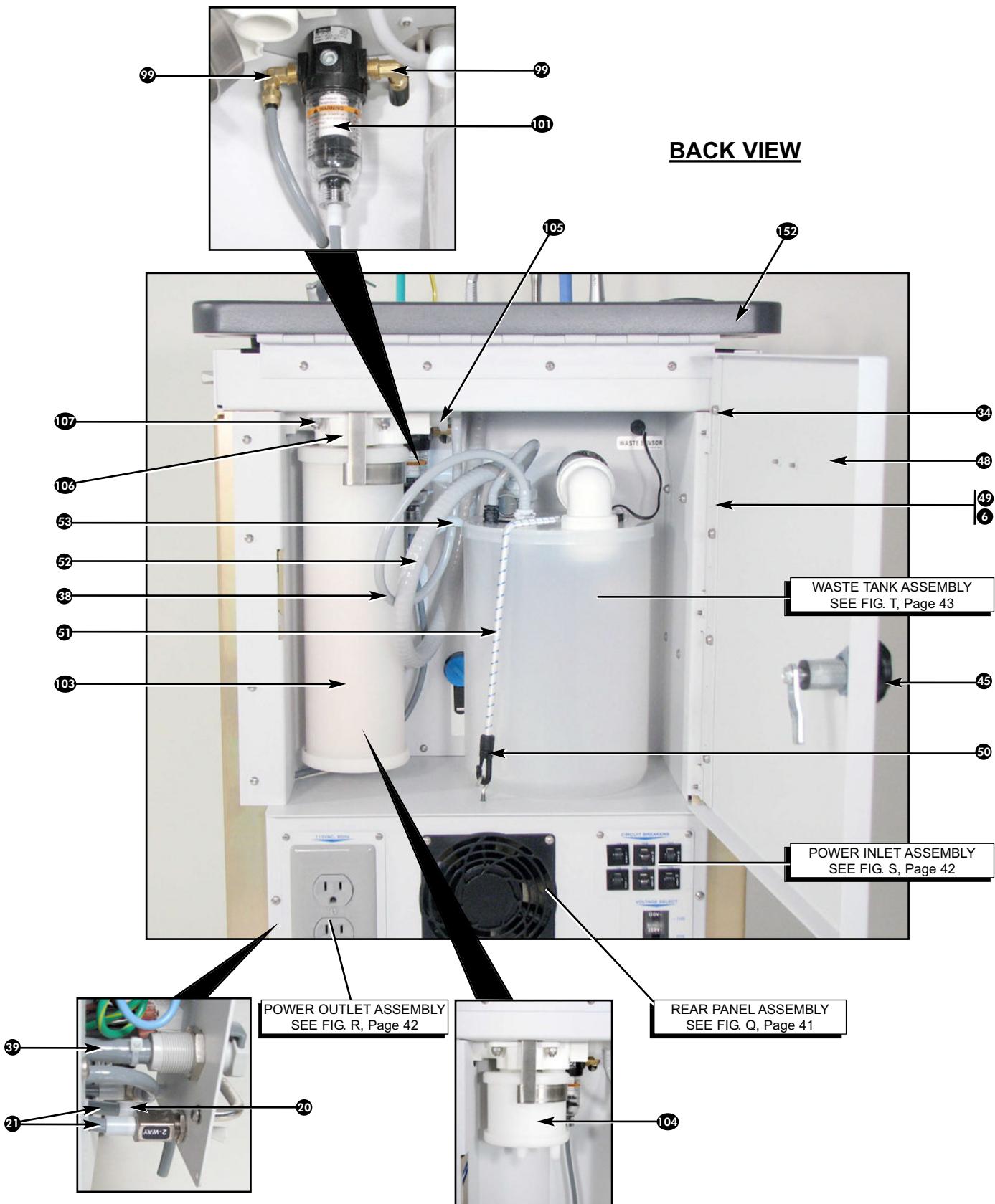
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 9 of 11 - Left Side View)**



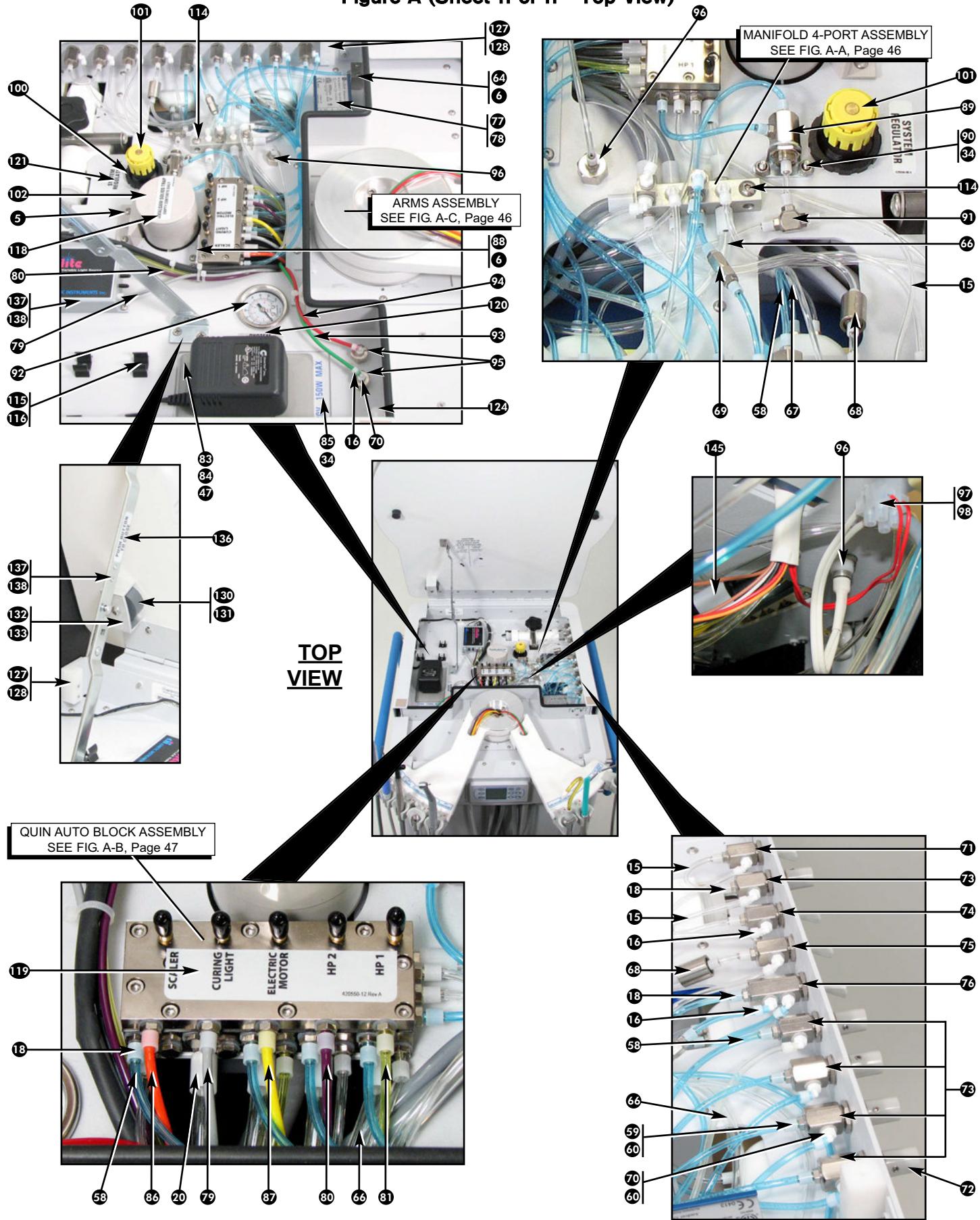
**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 10 of 11 - Back View)**



**NOTE: Refer to Pages 33 & 34 for Parts Descriptions**

**FINAL ASSEMBLY PARTS LIST**  
**Figure A (Sheet 11 of 11 - Top View)**



# FINAL ASSEMBLY PARTS LIST (Sheet 1 of 2)

Ref Figure A

ITEM	PART NO	QTY	ITEM	PART NO	QTY
1 FINAL ASSY AMC-20CF DUAL VOLTAGE	120356	1	65 LABEL AIR SYRINGE WATER AMC-20	420748-07	1
2 CASE AMC-20 CART	410195	1	66 TUBING POLY 1/4OD CLR	AA-95C	3.79'
3 WATER BOTTLE 1000ml ZIRC KIT	730631-01	2	67 FTN BARB 1/16 DELRIN TEE	730152	6
4 HANDLE ASSY AMC-20	330540	2	68 REGULATOR 35 PSI MINI FIXD	730521	1
5 C/S SOCHD STNLS 1/4-20 X 2-3/4	510693	8	69 VALVE CHECK ANTI RETRACTION	730012	1
6 C/S BTNSOC STNLS 8-32 X 3/8	510404	72	70 FTN ELBOW 90 10-32 X 1/16BARB WHT NYL	730011	22
7 C/S BTNSOC STNLS 8-32 X 3/4	510506	15	71 VALVE TOGGLE 2W/2P GRY W/O EX	730010	2
8 XFMR STEPDOWN 2000VA 220V TO 110V	800117	1	72 KNOB GRY PLASTIC 1/4D STYLE II	850012	5
9 C/S BTNSOC STNLS 1/4-20X1/2	510477	34	73 VALVE NEEDLE CONTROL W/O KNOB	730066	5
10 WASHER LOCK STNLS SPLIT 1/4"	510508	12	74 VALVE TOGGLE MMTRY 3W-W/EXHST	730043	1
11 XFMR 115/230VAC TO 24VAC	800118	1	75 VALVE TOGGLE 3W/2P GRY W/EX	730014	1
12 C/S BTNSOC STNLS 10-32X1/2	510312	4	76 VALVE TOGGLE 3-WAY 3-PORT	730032	1
13 WASHER INT STAR S/S #10	510421	4	77 SCALER ASSEMBLY SYSTEM	730500	1
14 TUBING 1/2OD X .062W GRY URETH	730373	2.5'	78 M/S STNLS FLAPHL M3 X 6mm	510530	2
15 TUBING POLY 1/8OD CLR	AA-94C	23.42'	79 TUBING POLY 1/8 OD LIGHT GREY	AA-94LG	3.58'
16 FTN 1/8 DELRIN UNI-CLAMP	730096	19	80 TUBING POLY 1/8 OD PURPLE	AA-94P	3.58'
17 TUBING AIR BRAKE 1/4" BLK	730130	3.62'	81 TUBING POLY 1/8 OD TRANSPARENT YELLOW	AA-94TY	3.58'
18 FTN 1/8ID SLEEVE CLAMP CLEAR	730015	3	82 MODULE FIBER OPTIC 5 HP W/TRANSFORMER	730623	1
19 TUBING AIR BRAKE 1/2" BLK	730256	3.90'	83 PLATE WALL DUPLEX RECEPTACLE 1 GANG GRY	850071	2
20 FTN 1/4 DELRIN SLEEVE	730095	21	84 POWER OUTLET DUPLEX 15A HOSP GRADE GRY	840105	2
21 TUBING POLY 1/4ODX.159ID GRY 90 DURMETR	AA-95G	10.5'	85 PLATE VOLTAGE OUTLET FO SILKSCREENED	461771-01	1
22 CLAMP 4-1/8" TO 7" WORM-DRIVE HOSE CLAMP	510514	3	86 TUBING POLY 1/8 OD ORANGE	AA-94O	2'
23 C/S HEX HD STNLS 1/4-20 X 5/8	510704	4	87 TUBING POLY 1/8 OD YELLOW	AA-94Y	2'
24 EXTENSION PLATE MOTOR MOUNT AMC-20	461898	2	88 BRACKET QUIN HOLD DOWN AMC-20	461865	1
25 C/S FLASOC STNLS 5/16-18 X 3/4	510702	4	89 VALVE AIR PILOT 2WAY W/O EX NC	730019	1
26 ISOLATOR SURFACE MNT NEOP VIBR BLUE	730314	4	90 BRKT 90DEG X 31/64"DIA MNTNG	730245	1
27 PAD ISOLATOR MOUNT AMC-20	461929	4	91 VALVE SHUTTLE 1/16 BARB	730016	1
28 C/S HEXHD STNLS 5/16-18 X 3/4	510352	8	92 GAUGE 0-100PSI 1-5/8 PANEL MTG	730101	1
29 WASHER #5/16 S/S BOLT SIZE 1/16" THK	510107	16	93 TUBING POLY 1/8OD GRN	AA-94G	2.66'
30 NUT NYLOC 5/16-18 STNLS HEX	510126	8	94 TUBING POLY 1/8OD RED	AA-94R	2.66'
31 CONN JUMPER 7/16 CENTER 3 POSITION	860253	3	95 SWITCH AIR ACTIVATED ELECTRIC N/C	830137	2
32 CONN JUMPER 7/16 CENTER 2 POSITION	860254	3	96 SWITCH AIR ACTIVATED ELECTRIC	730031	1
33 CONN TERMINAL BLOCK 7/16 CENTER 20A 8 POS	860256	1	97 CONN TERMINAL BLOCK .315 CENTER 10A 2 POS	860244	4
34 NUT NYLOC 6-32 STNLS HEX	510395	16	98 M/S STNLS PHDPHL 4-40X1/2 SELF THREADING	510723	2
35 WIRE PVC #18 WHT (9)	870031	14.25'	99 FTN 1/4MPT X 1/4 POLY ELBOW	730329	3
36 WIRE PVC #18 BLK (0)	870026	17.33'	100 NUT FILTER REGULATOR RETAINER	510712	1
37 TUBING PVC 1/2ODX3/8IDX1/16W CLEAR	730288	0.24'	101 FILTER 1/4 NPT WATER SEPARATOR AMC-20	730598	1
38 TUBING SALIVA EJECT 3/8OD GRY	AA-86G	11.65'	102 CANISTER CENTRAL VACUUM GRAY	AA-290	1
39 TUBING 3/8OD X .245ID GRY POLY 90 DURMETR	730312	4.66'	103 AMALGAM SEPARATOR MOD	730595-01	1
40 FTN POLYPROPYLENE 3/8 X 1/4 REDUCING	730627	2	104 CONTAINER BYPASS AMALGAM SEPARATOR	730615	1
41 CLAMP VENTURI TUBE	461607	2	105 FTN 1/4 BARB X 3/4 MPT 90 DEGREE PVDF	730613	2
42 TUBING POLYURETHANE 5/32 OD X 3/32 ID	730227	1.83'	106 MANIFOLD AMALGAM SEPARATOR MOD	730596-01	1
43 CABLE 3 COND AWG 14 300V UL/CSA TYPE SJT	870309	4.04'	107 NUT NYLOC 1/4-20 STNLS HEX	510296	7
44 CABLE 2 COND AWG14 300V UL/CSA TYP SJOOW	870308	10.91'	108 FILTER 10-32 THREAD STAINLESS	730326	2
45 LATCH COMPRESSION WING KNOB LOCKABLE	510678	1	109 FTN BARB 10-32 X 1/8 BRT/NKL	730073	2
46 CABLE WRAP EXTRUDED	500326	1	110 TUBING POLY 1/4OD BLU	AA-95B	1.89'
47 C/S BTNSOC STNLS 6-32X3/8	510160	46	111 GASKET FOR NWS-8 BOTTLE LID	730473	2
48 UPPER REAR PANEL AMC-20	461776	1	112 CAP COUPLING WATER ADU-17	461566	2
49 HINGE UPPER REAR DOOR AMC-20	461791	1	113 BOTTLE BRACKET MODULAR FRAME AMC-20	461733	1
50 HOOK 1/4" BLACK PLASTIC	730371	2	114 C/S BTNSOC STNLS 10-32 X 3/4	510423	1
51 CORD BUNGEE 1/4" DIA.	730370	1.83'	115 CLIP COMPONENT SCREW MOUNT .62 DIA	510699	3
52 TUBING ASEPSI-FLEX 1/2ID GRY	AA-83A	9.25'	116 RIVET BLIND AL/AL 1/8D3/16-1/4	510170	20
53 VALVE CHECK 3/16 ID TUBE	730634	1	117 CLIP COMPONENT SCREW MOUNT .50 DIA	510698	1
54 TUBING VINYL 1-5/16 OD X 1 ID BRAIDED	730608	1.66'	118 LABEL AMALGAM SOLIDS TRAP AMC-20	420748-06	1
55 FTN 1 IN X 1 IN ELBOW PVC	730603	1	119 LABEL QUIN BLOCK AMC-20	420550-12	1
56 TUBING CURING LIGHT	730625	1	120 LABEL SYSTEM PRESSURE AMC-20	420556-09	1
57 TUBING 2H POLY STRT SYNG GRY	AA-85G	5.5'	121 LABEL SYSTEM REGULATOR AMC-20	420556-08	1
58 TUBING POLY 1/8OD BLU	AA-94B	10.94'	122 TAPE TEFLON 1-IN. SQUARE	490141	2
59 FTN BARB 10-32 X 1/16 PLATED	730062	46	123 INSULATOR 8 POLE TERMINAL BLOCK	461971	1
60 GASKET NYLON #10	730074	105	124 HOLE PLUG 3/8 NYLON WHT	510497	2
61 GAUGE 0-100PSI EDGE PANEL MTG	730132	1	125 EDGE TRIM 1/16ID X 1/4 X 1/4 RUBBER	730378	2.15'
62 NUT NYLOC 4-40 STNLS HEX	510394	8	126 DIVIDER TOP PANEL MODULAR FRAME AMC-20	461735	1
63 BRACKET GAUGE AMC-20	461741	1	127 SIDE PANEL SUPPORT BLOCK SHORT AMC-20	461716	2
64 BLOCK FLOW ADJUSTMENT MOD	730022	1	128 C/S BTNSOC STNLS 6-32X5/8	510720	1

Cont'd...next page

# FINAL ASSEMBLY PARTS LIST (Sheet 2 of 2)

## Ref Figure A

ITEM	PART NO	QTY	
129	SIDE PANEL SUPPORT BLOCK LONG AMC-20	461710	1
130	HOLE PLUG 1.0 NYLON BLK	510705	1
131	AUXILIARY POLE SUPPORT AMC-20	461793	1
132	BRACKET AUXILIARY SUPPORT AMC-20CF	461878	1
133	C/S BTNSOC STNLS 1/4-20 X 7/8	510257	1
134	BUMPER SORBOTHANE 70 DURO 8-32 MALE BLK	510700	2
135	LABEL CAUTION LID SUPPORT AMC-20	420715-02	1
136	LABEL PUSH BUTTON TO CLOSE AMC-20	420556-10	1
137	LID SUPPORT AMC-20	510687	1
138	M/S STNLS FLAPHL 8-32X1/2	510533	2
139	RIVET BLIND STNLS 3/16DX1/16-1/4 GRIP	510716	1
140	WASHER NYL .196IDX.437ODX.062T	510019	1
141	SPACER ALUM 10-32X13/16LX5/16 HEX FEM STDF	510536	2
142	ANGLE BRACKET LID SUPPORT AMC-20	461875	1
143	TOP PANEL MDF AMC-20 CART	461718	1
144	HINGE TOP LID AMC-20	461792	1
145	LABEL SCALER FUSE AMC-20	420748-08	1
146	FIBER-BRITE REPLACEMENT LAMP MODULE	AA-19AB	2
147	SYRINGE 3-WAY AIR/WATER QUIK CHANGE TIP	TA-90D	1
148	VALVE SAL/EJECT AUTOCLAVABLE LEVER	AA-37LAD	1
149	VALVE CENT VAC UNIV LEVER AUTO DCI	AA-35LAD	1
150	HANDPiece CURING LIGHT	730624	1
151	CONTROL FOOT WET/DRY DISC WHT	AA-43W	1
152	TOP PANEL MODULAR FRAME AMC-20	461734	1
153	INSULATION BASE PANEL AMC-20	461717	1
154	INSULATOR VERTICAL CORNER RIGHT AMC-20	461873	2
155	INSULATOR VERTICAL CORNER AMC-20	461859	1
156	INSULATOR VERTICAL CORNER SHORT AMC-20	461860	1
157	BULKHEAD CONNECTOR PANEL BRACKET	461700	2
158	EDGE TRIM 1/8 ID X 1/4 X 5/16 RUBBER	730622	3.01'
159	CLAMP 3/8" SANTOPRENE CUSHIOND PLATED	510409	1
160	TERM RING #8 LUG 16-14AWG BLU	860117	14
161	WASHER INT STAR S/S #8	510420	13
162	NUT HEX 8-32 STNLS	510428	6
163	CASTER 4" POLY-U/POLYOLEFIN 1/2-13X1-1/2 LCK	730606	2
164	NUT HEX NYLON INSERT 1/2-13 STNLS	510676	4
165	WASHER FENDER 17/32 ID X 2 OD STNLS	510675	8
166	CASTER 4" POLY-U/POLYOLEFIN 1/2-13 X 1-1/2	730607	2
167	CORNER BRACKET MODULAR FRAME AMC-20	461732	4
168	CORNER UPRIGHT LEFT FRONT AMC-20	461731	1
169	CORNER UPRIGHT RIGHT FRONT AMC-20	461665	1
170	CORNER UPRIGHT LEFT REAR AMC-20	461666	1
171	CORNER UPRIGHT RIGHT REAR AMC-20	461667	1
172	BASE MODULAR FRAME AMC-20	461730	1
173	TUBING AA-19A GRAY 6-PIN FIBER BRITE	AA-19A-04T6	2
174	C/S BTNSOC STNLS 10-32X1/4	510435	3
175	WASTE HOSE ASSEMBLY	330673	1
176	FTN 1/4 POLY X 1/8MPT POLYTITE	730117	2
177	FILTER INLINE	730001	1
178	M/S STNLS PHDPL 8-32 X 1/2	510545	2
NS	* LATCH STRIKE PLATE AMC-20	461779	1
NS	* LINECORD US HOSPITAL GREY 15A/125V 10 FT	840101	1
NS	* LINECORD EURO BLACK 15A/250V 2.5 M	840102	1
NS	* SEALANT RTV G.E. SILICONE II	490006	1
NS	* ADHESIVE LOCTITE 406	490029	1
NS	* ADHESIVE LOCTITE 242	490034	1
NS	* ADHESIVE 5 MIN 2-PART DEVCON	490049	1
NS	* ADHESIVE LOCTITE 620	490073	1
NS	* LUBRICANT PARKER SUPER O-LUBE	490138	1
NS	* LUBRICANT ANTI-SEIZE STAINLESS STEEL	490139	1

(\* NS = NOT SHOWN)

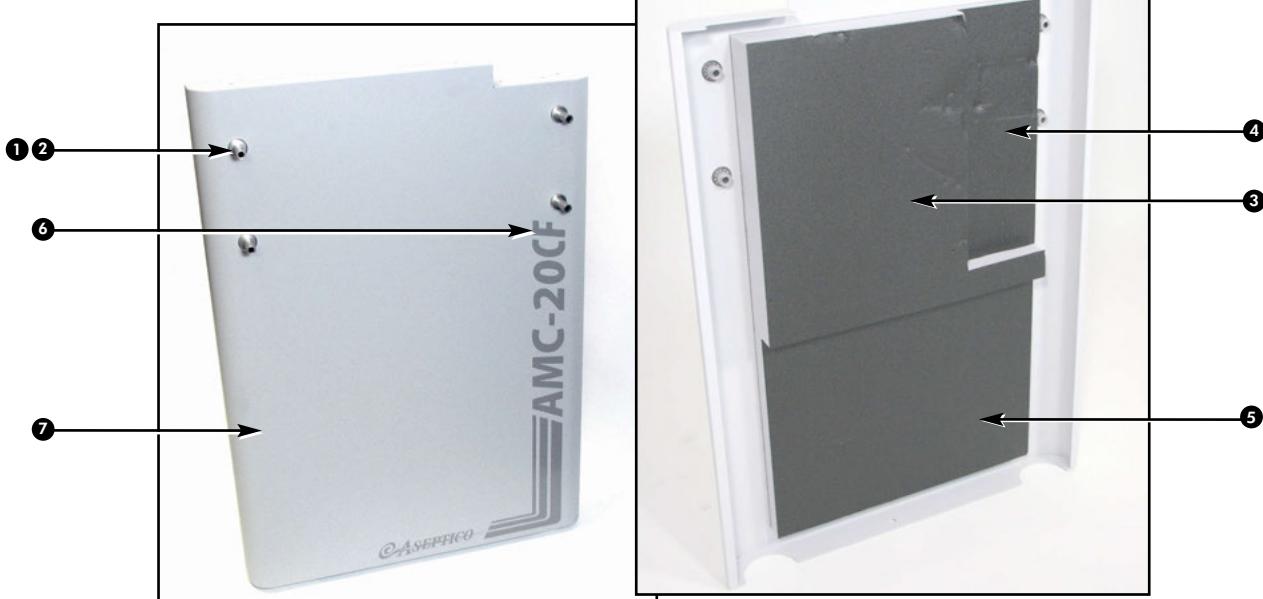
## PARTS LIST - Figure B - Accessory Tray Assy

ITEM	PART NO	QTY	ITEM	PART NO	QTY
① TRAY STAINLESS 13-11/16 X 9-13/16 X 3/4	AA-50	1	⑧ WASHER NYL .505IDX.750ODX.062T	510175	2
② BUSHING 5/8OD X 1/2ID 1-1/8L	520014	1	⑨ DOWELL PIN STEEL 1/2D X 2L	510132	1
③ PIVOT BLOCK CMPL AA-08A	460569-08	1	⑩ C/S SOCHD BLK 1/4-20X3/4	510044	1
④ C/S BTNSOC STNLS 10-32X1/2	510312	2	⑪ POST MOUNTING CLAMP CMPL	460394-08	1
⑤ FOOT BUMPER 0.5 X 0.14 CYLIN CLEAR	850067	4	⑫ ENDCAP INSERT 1"OD X 18GA BLK	510204	1
⑥ TRAY SUPPORT MOLDED GREY	460104	1	⑬ POST AUXILIARY ARM AMC-20	461889	1
⑦ FOLDING ARM 12" SECTION CMPL	460101-08	1	NOT SHOWN: HEX KEY 3/16 SHORT	490011	1



## PARTS LIST - Figure C - Left Side Panel Assembly

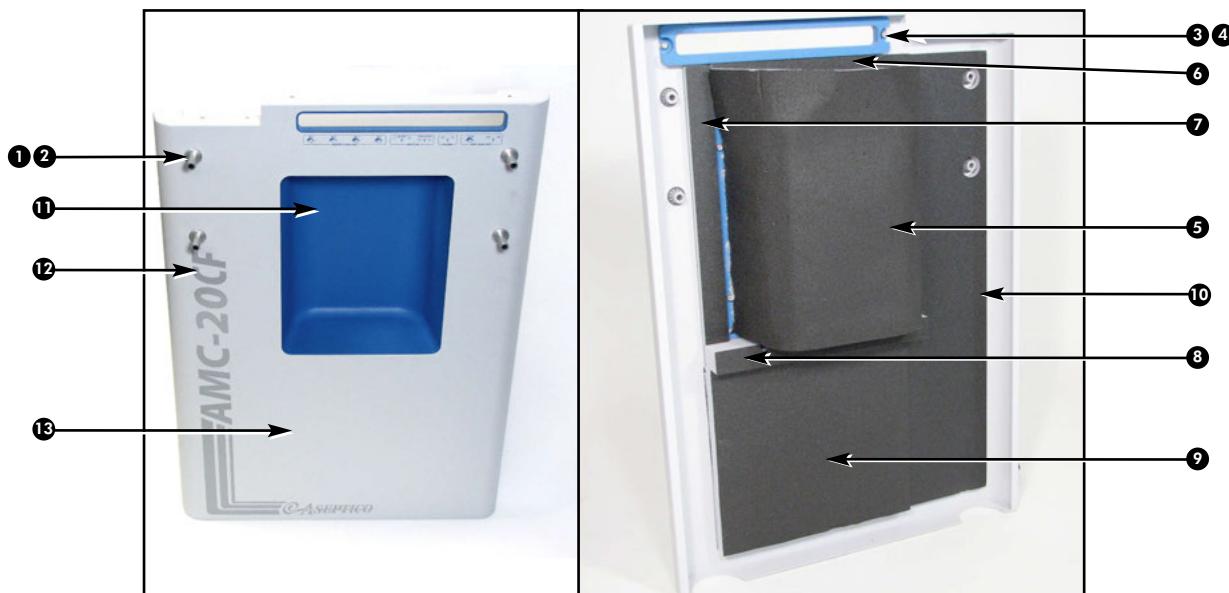
ITEM	PART NO	QTY	ITEM	PART NO	QTY
① HANDLE STANDOFF AMC-20	461709	4	⑤ INSULATION SIDE LEFT BOTTOM AMC-20	461918	1
② RING RETAINING EXTERNAL 5/8 DIA SHAFT	510674	4	⑥ LABEL AMC-20CF	420845	1
③ INSULATOR LEFT SIDE AMC-20	461754	1	⑦ PANEL LEFT SIDE AMC-20	461702-01	1
④ INSULATION SIDE LEFT FILL AMC-20	461919	1			



## PARTS LIST - Figure D - Right Side Panel Assembly

ITEM	PART NO	QTY
❶ HANDLE STANOFF AMC-20	461709	4
❷ RING RETAINING EXTERNAL 5/8 DIA SHAFT	510674	4
❸ SIDE CONTROLS INSERT MODULAR FRAME	461740	1
❹ NUT NYLOC 8-32 STNL	510411	10
❺ INSULATION BOTTLE WELL AMC-20	461922	1
❻ INSULATION RIGHT SIDE TOP AMC-20	461923	1
❼ INSULATION RIGHT SIDE UPPER TOP AMC-20	461924	1

ITEM	PART NO	QTY
❸ INSULATOR RIGHT SIDE AMC-20	461753	1
❹ INSULATION SIDE RIGHT BOTTOM AMC-20	461921	1
❺ INSULATOR RIGHT SIDE FILL AMC-20	461874	1
❻ WATER BOTTLE INSERT MODULAR FRAME	461739	1
❼ LABEL AMC-20CF	420845	1
❽ PANEL RIGHT SIDE SILKSCREENED AMC-20	461701-01	1



## PARTS LIST - Figure E - Front Panel Assembly

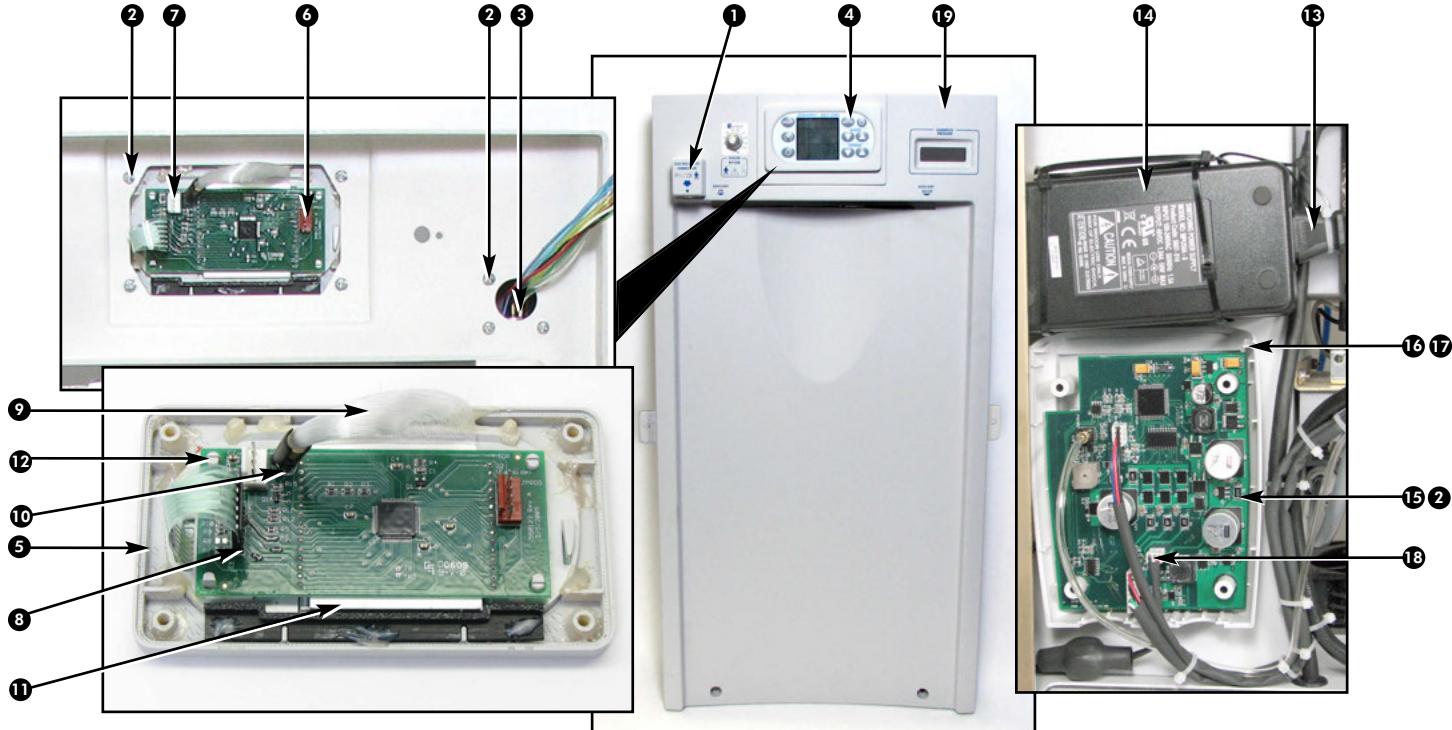
ITEM	PART NO	QTY
❶ SCALER ASSEMBLY SYSTEM	730500	1
❷ INSULATOR FRONT COVER AMC-20	461758	1

ITEM	PART NO	QTY
❸ INSULATOR FRONT PANEL FILL AMC-20	461584	1
❹ FINAL ASSY AEU-5000 REMOTE MOUNT	120367	1



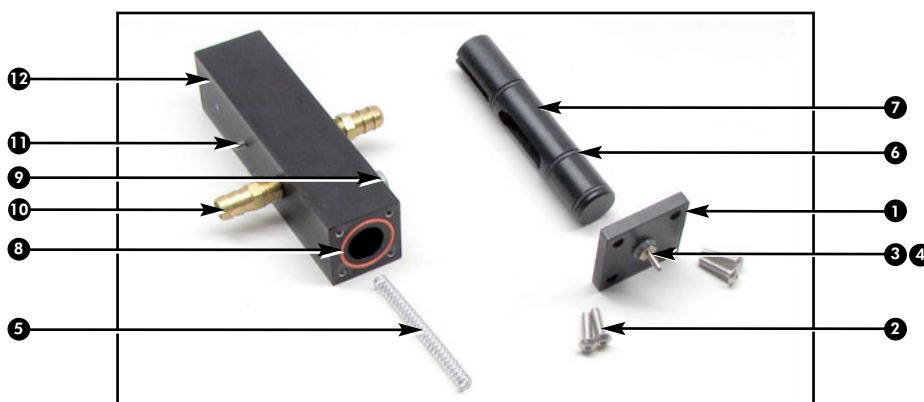
## PARTS LIST - Figure F - AEU-5000 Mount Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
1 HOUSING OUTLET CONNECTOR 5000 MOUNT	461886	1	11 LCD DISPLAY AEU-5000	880232	1
2 M/S PHPHL 6 X 3/8 PLASTITE 48-2 HARD STEEL	510650	9	12 PCB ASSY DISPLAY AEU-5000 COATED	330553-C	1
3 RECEPTACLE ASSY AEU-5000	330557	1	13 LINECORD REMOTE US 6FT BLK 15A MOD	840041-01	1
4 MEMBRANE CONTROL PANEL AEU-5000	420793	1	14 POWER SUPPLY ASSY AEU-5000/AMC-20	330570	1
5 BEZEL REMOTE MOUNT AEU-5000	461883	1	15 PCB ASSY POWER AEU-5000 COATED	330565-C	1
6 CONN .1 HDR STRT/LOCK 5 PIN	860025	1	16 HOUSING LOWER AEU-5000	461797	1
7 CONN .1 HDR LOCKING 4 PIN	860090	1	17 C/S BTNSOC STNLS 10-32X1/4	510435	2
8 CONN .1 HDR BREAKAWAY MALE 40 PIN 1-ROW	860087	1	18 WIRE HARNESS BOARD TO BOARD AEU-5000 KIT	875108	1
9 BACKLIGHT LCD AEU-5000	461838	1	19 FRONT PANEL SILKSCREENED MOTOR AMC-20	461703-02	1
10 LED T 1-3/4 WHITE HIGH BRIGHTNESS	880237	1			



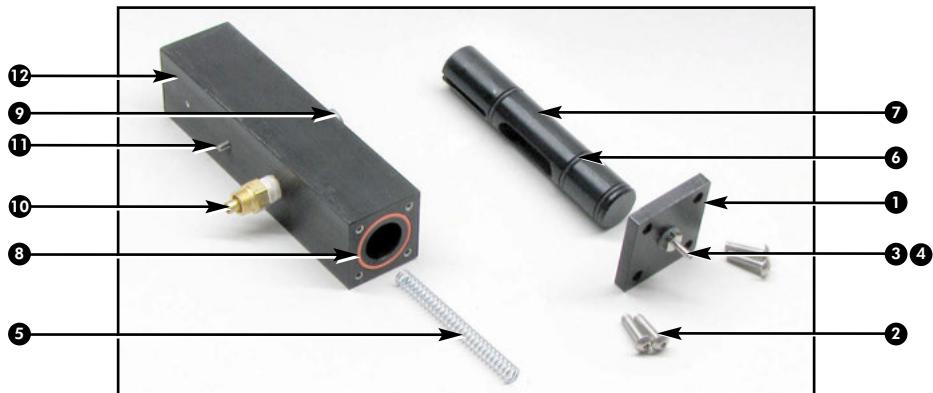
## PARTS LIST - Figure G - Vacuum Valve Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
1 TOP VACUUM VALVE	461853	1	7 PLUNGER VACUUM VALVE	461850	1
2 C/S BTNSOC STNLS 6-32X1/2	510036	4	8 O-RING .837ID X .058CS SL70 TABLE 300028	520004	1
3 FTN BARB 10-32 X 1/16 PLATED	730062	1	9 FTN PLUG BRASS 1/8 MPT HEXHD CNTRSUNK	730341	1
4 GASKET NYLON #10	730074	1	10 FTN 1/8 MPT X 3/8 BARB MODIFID	730366-08	2
5 SPRING COMPRESSION 0.028 WIRE X 2.5 LONG	510684	1	11 SETSCREW SOCCUP STNL 4-40X1/4	510187	1
6 O-RING 0.593 ID X 0.063 WIDE-S70 BLACK	520078	3	12 BODY VACUUM VALVE	461854	1



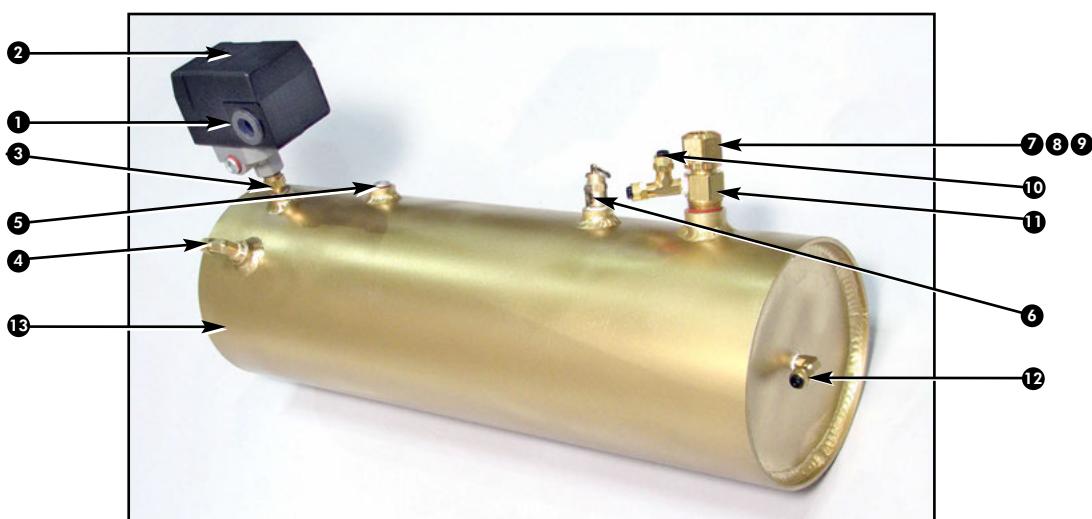
## PARTS LIST - Figure H - Relief Valve Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
① TOP VACUUM VALVE	461853	1	⑦ PLUNGER VACUUM VALVE	461850	1
② C/S BTNSOC STNLS 6-32X1/2	510036	4	⑧ O-RING .837ID X .058CS SL70 TABLE 300028	520004	1
③ FTN BARB 10-32 X 1/16 PLATED	730062	1	⑨ FTN PLUG BRASS 1/8 MPT HEXHD CNTRSUNK	730341	1
④ GASKET NYLON #10	730074	1	⑩ FTN 1/4 POLY X 1/8MPT POLYTITE	730117	1
⑤ SPRING COMPRESSION 0.028 WIRE X 2.5 LONG	510684	1	⑪ SETSCREW SOCCUP STNL 4-40X1/4	510187	1
⑥ O-RING 0.593 ID X 0.063 WIDE-S70 BLACK	520078	3	⑫ BODY VACUUM VALVE	461854	1



## PARTS LIST - Figure I - Air Tank Assembly

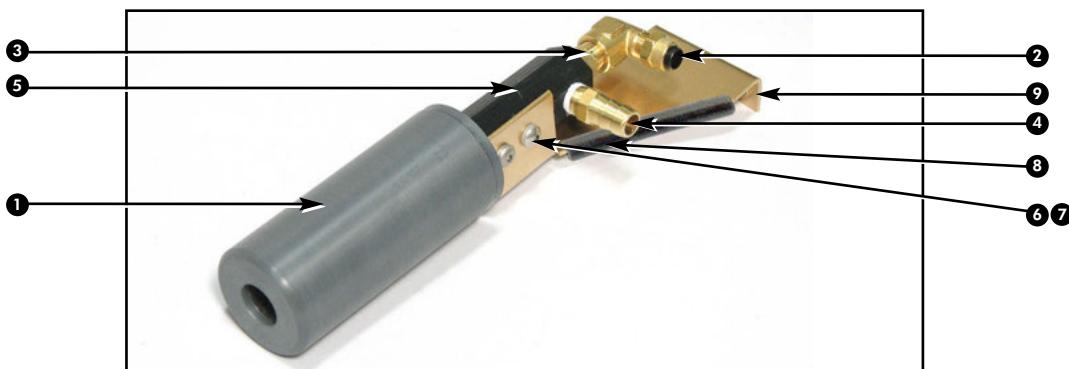
ITEM	PART NO	QTY	ITEM	PART NO	QTY
① GROMMET 9/16ID X 1/16GROOVE	870236	2	⑥ FTN SLEEVE 1/2 TUBE BRASS	730260	1
② SWITCH PRESSURE COMPRESSOR	830133	1	⑦ FTN INSERT 1/2 TUBE OD BRASS	730261	1
③ FTN NIPPLE 1/4MPT 1.38L BRASS	730233	1	⑩ FTN MALE RUN TEE 1/4X1/8NPT	730119	1
④ FTN 1/4MPT X 1/4 POLY ELBOW	730329	1	⑪ VALVE CHECK 1/2 TUBE X 1/2NPT	730257	1
⑤ FTN PLUG 1/4MPT X1/4HEX C/SUNK	730098	1	⑫ FTN ELBOW 90 1/4POLYX1/8MPT	730120	1
⑥ VALVE AIR SAFETY RELIEF 125 PSI 1/4 NPT	730574	1	⑬ COMPRESSOR TANK ASSY AMC-20	330567	1
⑦ FTN NUT 1/2 TUBE X 11/16-20 BRASS	730259	1			



## PARTS LIST - Figure J - Right-Hand Venturi Assembly

ITEM	PART NO	QTY
① MUFFLER ASSY AMC-20	330564	1
② FTN 1/8FPT 1/4POLY 90 DEG. ELB	730351	1
③ VENTURI 0.048 DIA NOZZLE	461852	1
④ FTN 1/8 MPT X 3/8 BARB MODIFID	730366-08	1
⑤ BODY VENTURI AMC-20	461851	1

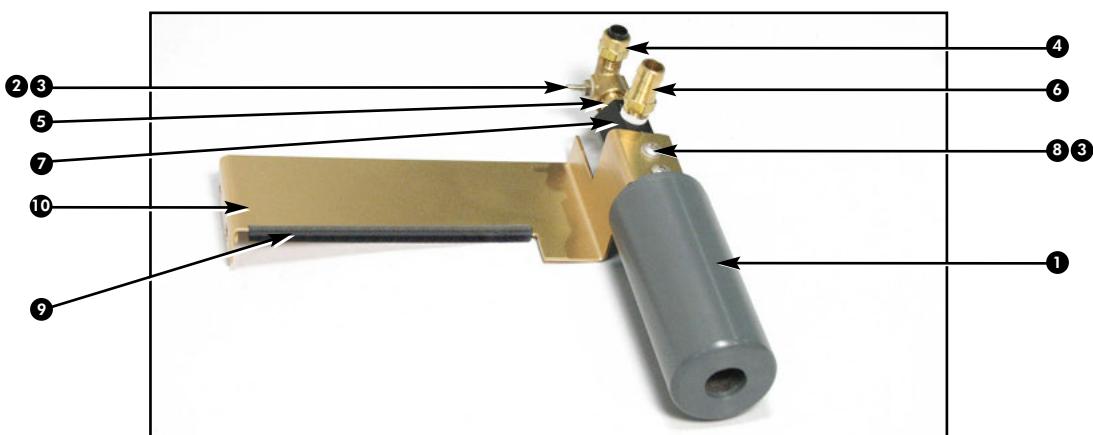
ITEM	PART NO	QTY
⑥ C/S BTNSOC STNLS 8-32X1/4	510309	2
⑦ GASKET NYLON #10	730074	2
⑧ EDGE TRIM 1/16ID X1/4 X 1/4 RUBBER	730378	2.00"
⑨ BRACKET RIGHT VENTURI AMC-20	461897	1



## PARTS LIST - Figure K - Left-Hand Venturi Assembly

ITEM	PART NO	QTY
① MUFFLER ASSY AMC-20	330564	1
② FTN BARB 10-32 X 1/16 PLATED	730062	1
③ GASKET NYLON #10	730074	3
④ FTN 1/8FPT X 1/4 POLY 90 DEG ELBOW MOD	730351-01	1
⑤ VENTURI 0.048 DIA NOZZLE	461852	1

ITEM	PART NO	QTY
⑥ FTN 1/8 MPT X 3/8 BARB MODIFID	730366-08	1
⑦ BODY VENTURI AMC-20	461851	1
⑧ C/S BTNSOC STNLS 8-32X1/4	510309	2
⑨ EDGE TRIM 1/16ID X1/4 X 1/4 RUBBER	730378	3.80"
⑩ BRACKET LEFT VENTURI AMC-20	461896	1

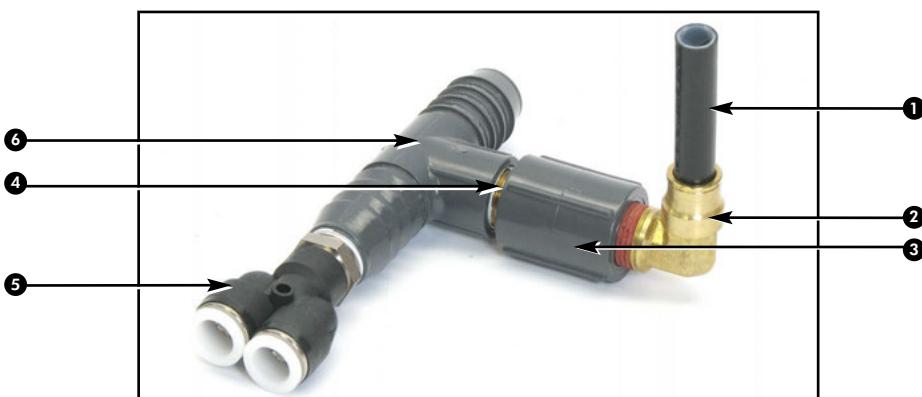


## PARTS LIST - Figure L - Vacuum Tube Assembly

ITEM	PART NO	QTY
① TUBING AIR BRAKE 1/2" BLK	730256	2.38"
② FTN PUSH-IN ELBOW 1/2 TUBE X 1/2 MPT	730619	1
③ FTN 1/2 FPT X 1/2 FPT ADAPTER PVC	730640	1
④ FTN NIPPLE 1/2MPTX1-1/8 CLOSE	730206	1

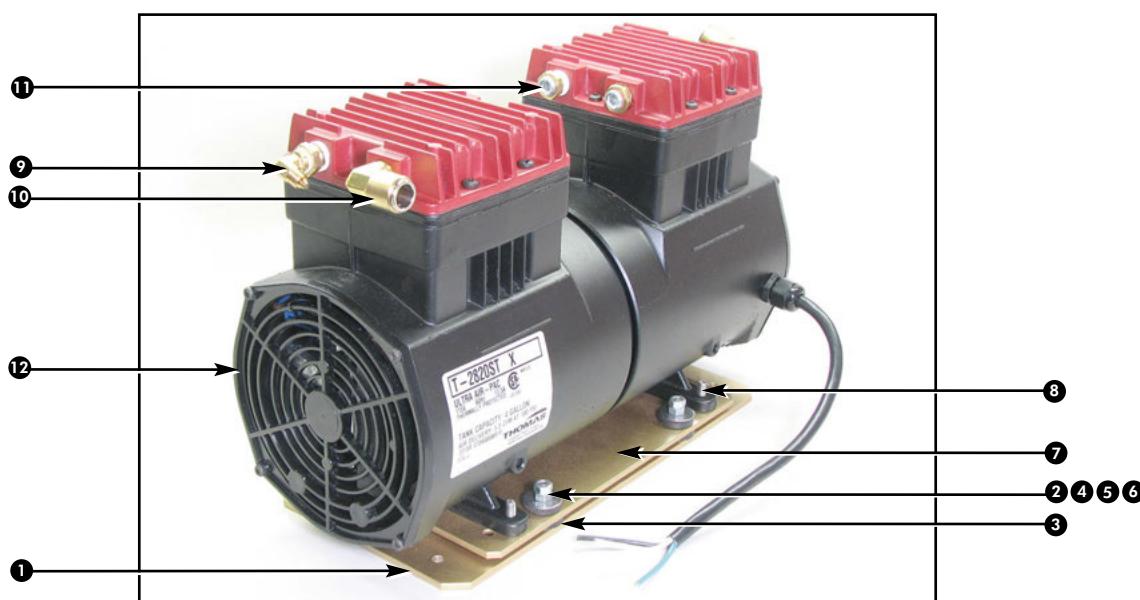
ITEM	PART NO	QTY
⑤ FTN Y 1/2 TUBE X 1/2 NPT	730597	1
⑥ FTN TEE 1 INCH BARBS X 1/2 FPT	730602-01	1
NS * FTN INSERT 1/2 OD BRASS (INSERT INTO TUBE) 730261		2

(\*NS = NOT SHOWN)



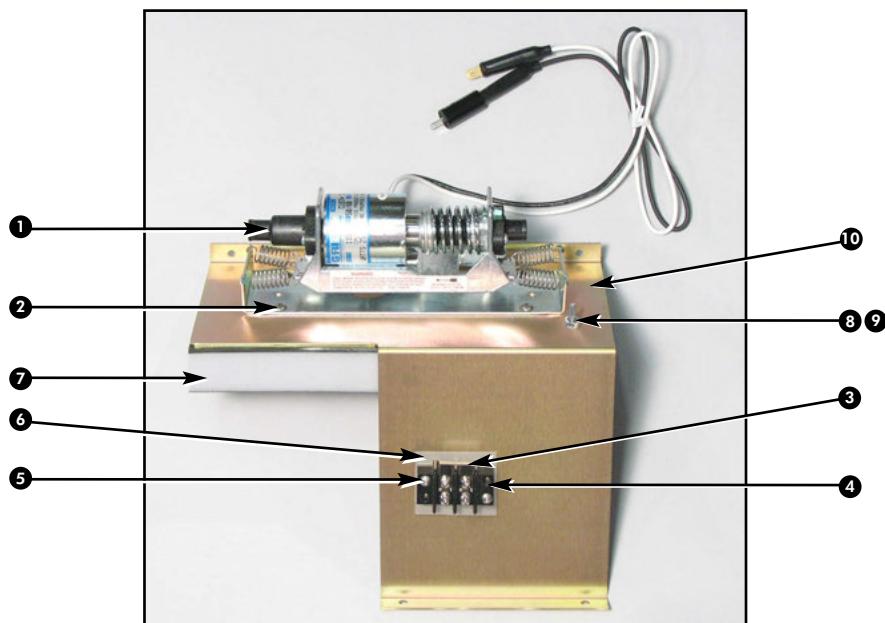
## PARTS LIST - Figure M - Compressor Motor Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
1 MAIN PLATE MOTOR MOUNT AMC-20	461899	1	8 C/S BTNSOC STNL 1/4-20 X 5/8	510503	4
2 C/S BTNSOC STNL 1/4-20X1-1/4	510295	4	9 FTN 3/8MPT X 1/4 POLY ELBOW	730638	1
3 GROMMET BUSHING SORBOTHANE 70 DURO	870315	4	10 FTN PUSH-IN ELB 1/2TUBEX3/8MPT VITON TYPE	730360	3
4 NUT HEX 1/4-20 PLTD	510098	8	11 FTN PLUG 3/8MPT X 5/16 HEX CSK HEAD	730637	4
5 WASHER FENDER STNL .281 ID X 1.0 OD	510703	4	12 COMPRESSOR OILLESS 2 HP 110V THOMAS MOD	720024-01	1
6 GROMMET WASHER SORBOTHANE 70 DURO	870316	4	NS * FTN INSERT 1/2 OD BRASS (INSERT INTO TUBE)	730261	1
7 ISOLATION PLATE MOTOR MOUNT AMC-20	461900	1	(* NS = NOT SHOWN)		



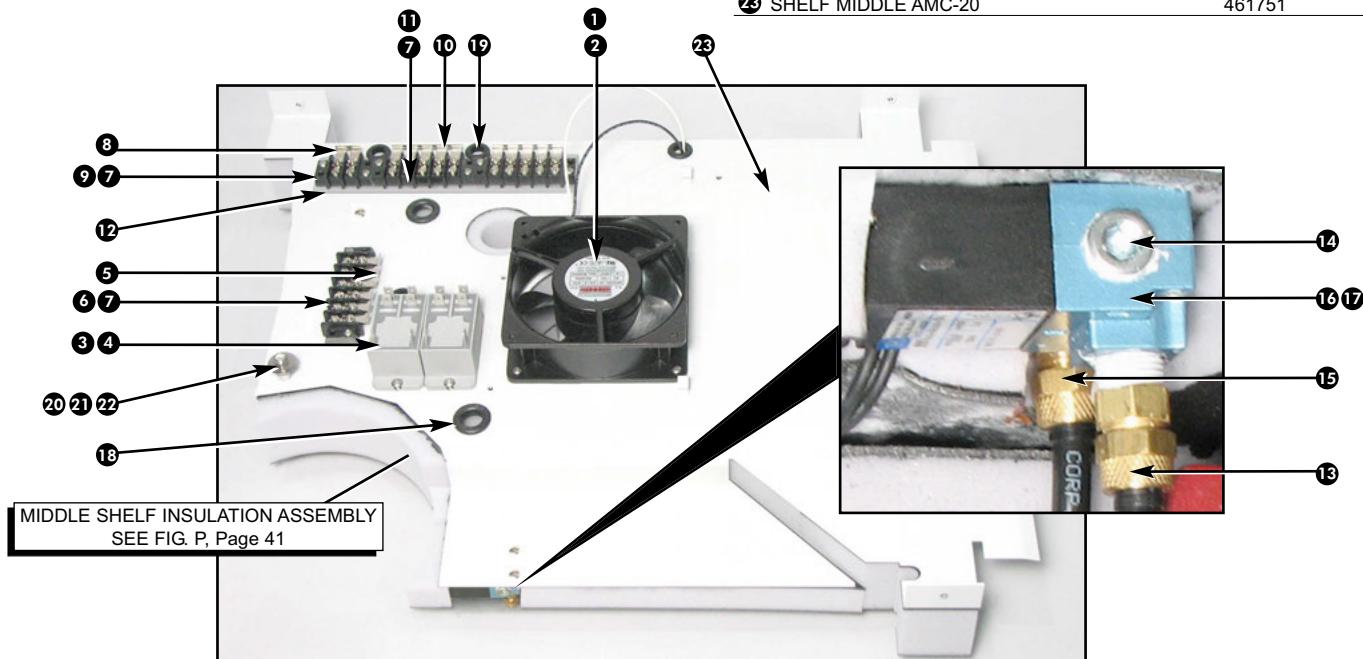
## PARTS LIST - Figure N - Pump & Bracket Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
1 PUMP 110V 25W 50/60Hz ADU-40CF	730271	1	6 INSULATOR 2 POLE TERMINAL BLOCK	461973	1
2 C/S BTNSOC STNL 8-32 X 3/8	510404	4	7 INSULATOR FAN COVER AMC-20	461855	1
3 CONN JUMPER 7/16 CENTER 2 POSITION	860254	1	8 NUT HEX 8-32 STNL	510428	1
4 CONN TERMINAL BLOCK 7/16 CNTR 20A 2 POS	860255	1	9 WASHER INT STAR SS #8	510420	3
5 C/S BTNSOC STNL 6-32X5/8	510720	2	10 FAN COVER UPPER AMC-20	461864	1



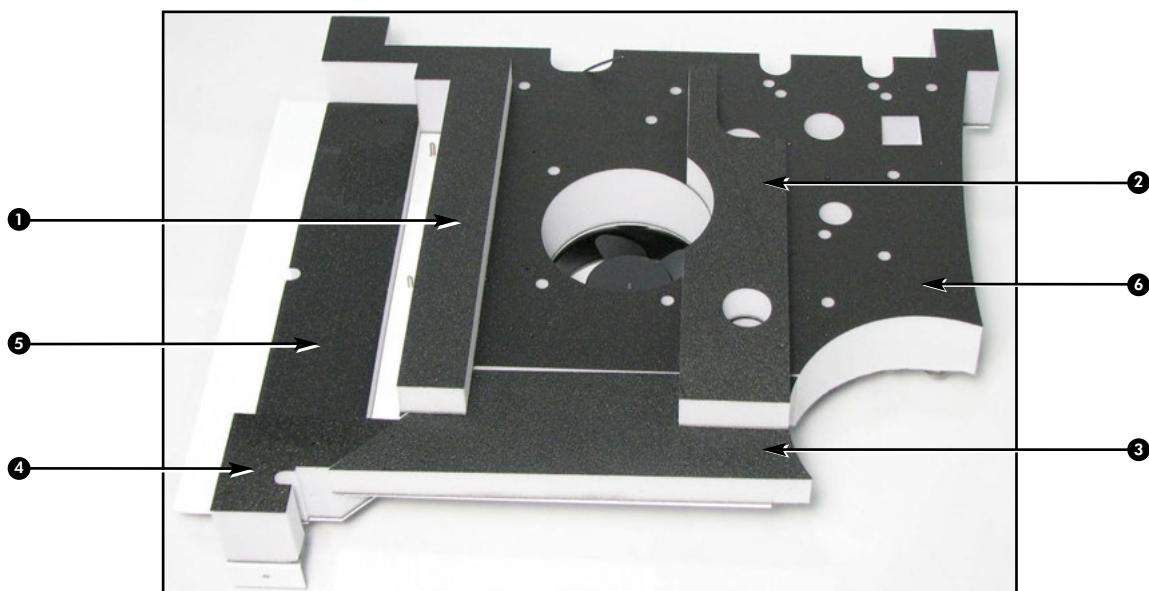
## PARTS LIST - Figure O - Middle Shelf Assembly

ITEM	PART NO	QTY
① FAN TUBEAXIAL 106 CFM 4.69 SQ X 1.5 THK	540012	1
② C/S BTNSOC STNLS 6-32X3/8	510160	4
③ RELAY SOLID STATE 24 TO 280VAC 25 A	800116	2
④ C/S BTNSOC STNLS 8-32 X 3/8	510404	4
⑤ CONN JUMPER 7/16 CNTR 3 POS	860253	2
⑥ TERM BLOCK 7/16 CNTR 20A 6 POS	860243	1
⑦ C/S BTNSOC STNLS 6-32X5/8	510720	8
⑧ CONN JUMPER 7/16 CNTR 2 POS	860254	1
⑨ CONN TERMINAL BLOCK 7/16 CNTR 20A 2 POS	860255	1
⑩ CONN JUMPER 7/16 CNTR 5 POS	860245	2
⑪ TERM BLOCK 7/16 CNTR 20A 5 POS	860241	2
⑫ INSULATOR STRIP AMC-20	461972	1
⑬ FTN 1/4 POLY X 1/8MPT POLYTITE	730117	1
⑭ FTN PLUG BRASS 1/8 MPT HEXHD CNTRSNK	730341	1
⑮ FTN ELBOW 90 1/4POLYX1/8MPT	730120	1
⑯ VALVE AIR 3 WAY 2 POS 1/8 FPT 120 PSI	730591	1
⑰ C/S BTNSOC STNLS 8-32X3/4	510506	2
⑱ GROMMET 9/16ID X 1/16GROVE	870236	2
⑲ GROMMET 7/16ID X 1/16GROVE	870235	4
⑳ WASHER FENDER 3/4ODX3/16ID S/S	510445	2
㉑ M/S STNLS PHDPHL 8-32 X 7/8	510601	1
㉒ NUT NYLOC 8-32 STNLS	510411	1
㉓ SHELF MIDDLE AMC-20	461751	1



## PARTS LIST - Figure P - Middle Shelf Insulation Assembly

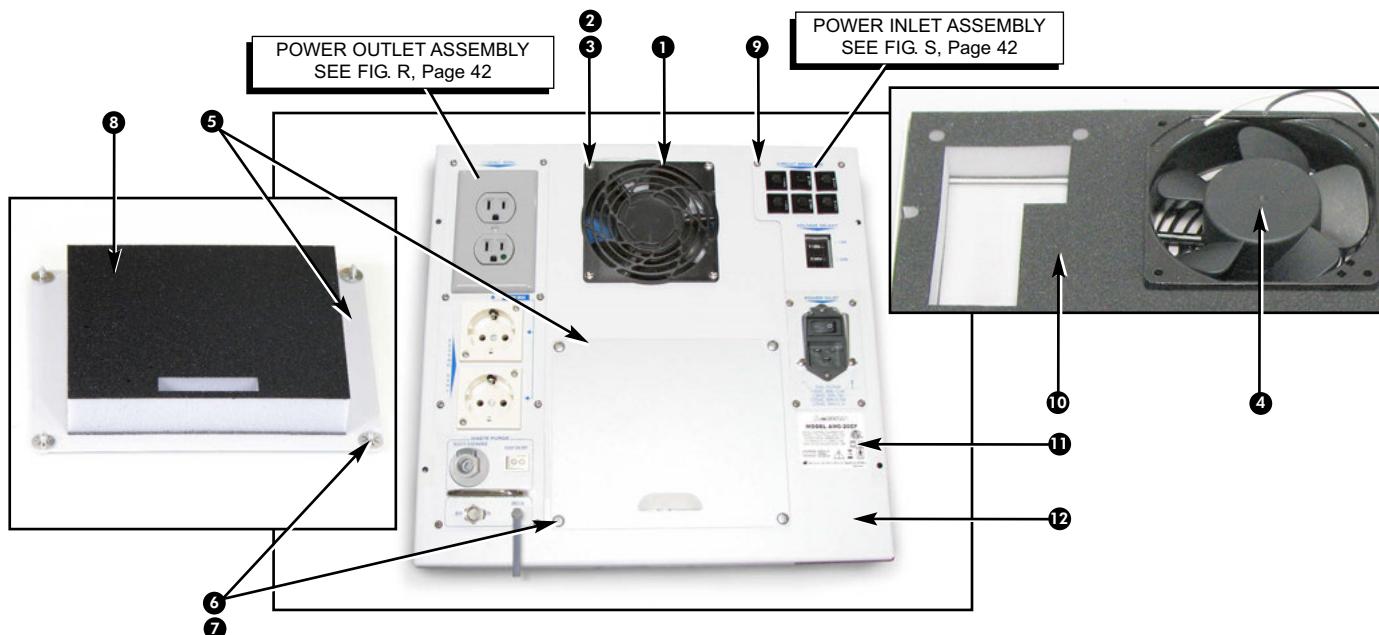
ITEM	PART NO	QTY
① INSULATOR BACK MOTOR STABILIZER AMC-20	461856	1
② INSULATOR FRONT MOTOR STABILIZER AMC-20	461857	1
③ INSULATOR MIDDLE PLATE FILL AMC-20	461858	1
④ INSULATOR MIDDLE SHELF RIGHT REAR AMC-20	461871	1
⑤ INSULATOR EXHAUST AMC-20	461861	1
⑥ INSULATOR MIDDLE SHELF AMC-20	461763	1



## PARTS LIST - Figure Q - Rear Panel Assembly

ITEM	PART NO	QTY
1 FAN GUARD PLASTIC 4.53X .10 TK	540009	1
2 C/S BTNSOC STNLS 8-32X3/4	510506	4
3 NUT NYLOC 8-32 STNLS	510411	4
4 FAN 115 V AXIAL 106 CFM 4.69 SQ X 1.5 THK	540012	1
5 REAR FILTER COVER AMC-20	461784	1
6 SCREW CAPTIVE SOUTHCOP FAST-LEAD -09	510715	4
7 RETAINER PUSH-ON FOR SOUTHCOP -09 SCREW	510714	4

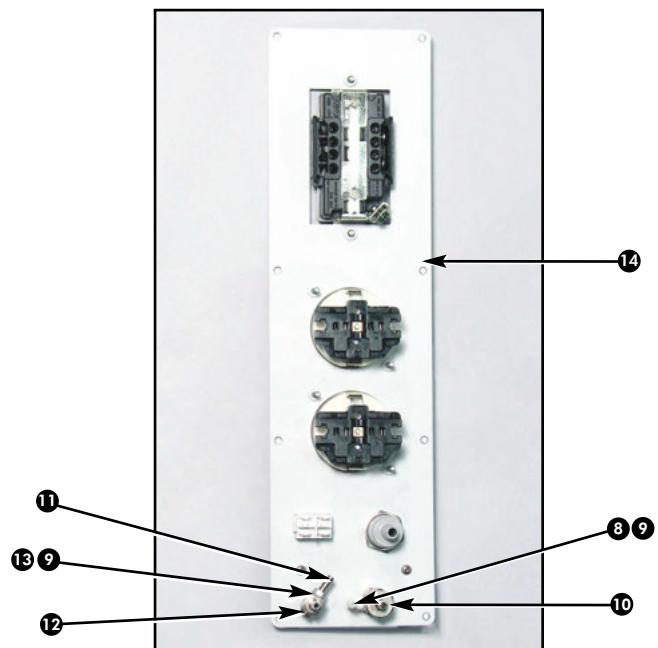
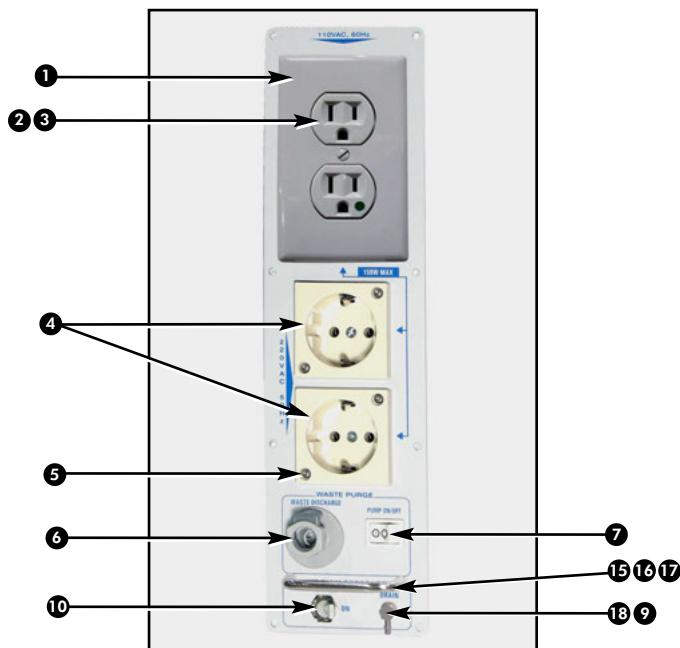
ITEM	PART NO	QTY
8 INSULATION NOISE REAR DOOR AMC-20	461927	1
9 C/S BTNSOC STNLS 6-32X3/8	510160	14
10 INSULATOR REAR WALL AMC-20	461781	1
11 LABEL CHASSIS	420682-06	1
12 REAR PANEL MODULAR FRAME AMC-20	461780	1



## PARTS LIST - Figure R - Power Outlet Assy

ITEM	PART NO	QTY
1 PLATE WALL DUPLEX RECEP 1 GANG GREY	850071	1
2 PWR OUTLET DUPLEX 15A HOSP GRADE GREY	840105	1
3 C/S BTNSOC STNLS 6-32X3/8	510160	2
4 PWR OUTLET EURO SCHUKO SNGL RECP CEE-7	840106	2
5 C/S BTNSOC STNLS 4-40X3/4	510444	4
6 FTN QD CPC PANEL MNT FEM 1/4" BARB	730352	1
7 SWITCH ROCKER WHT W/ON OFF IMPRINT	830108	1
8 FTN BARB 10-32 X 1/8 90D ELBOW	730023	3
9 GASKET NYLON #10	730074	3

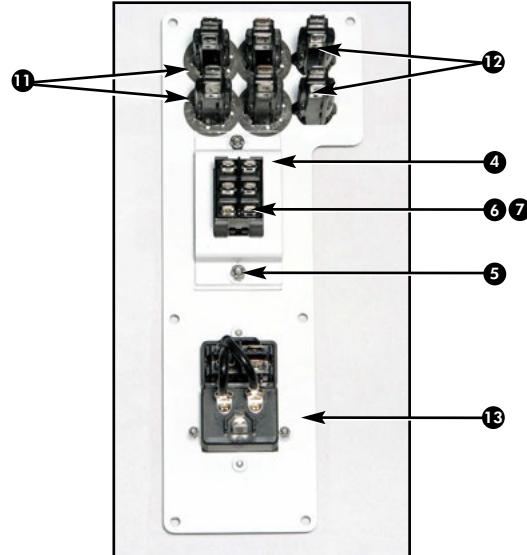
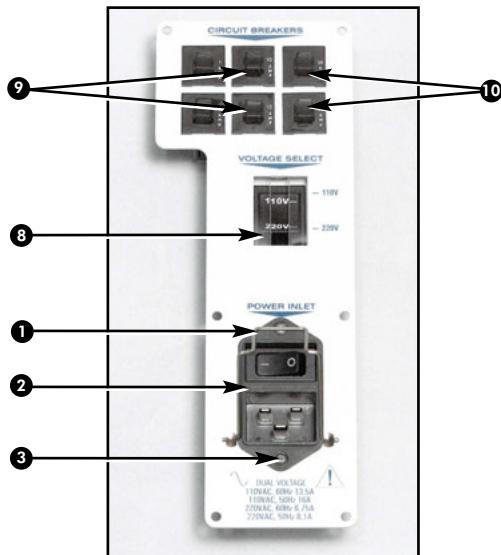
ITEM	PART NO	QTY
10 VALVE TOGGLE 2W/2P GRY W/O EX	730010	2
11 FTN BARB 10-32 X 1/8 BRT/NKL	730073	3
12 FTN PLUG 10-32 HEX BRT/NKL	730072	1
13 FTN 10-32 CROSS NICKEL PLTD	730139	1
14 PLATE VOLTAGE OUTLET DUAL AMC-20	461770-01	1
15 HANDLE STNLS 2.60L X .87H X M4 THREAD	850075	1
16 WASHER INT STAR S/S #8	510420	2
17 C/S BTNSOC STNLS M4 X 0.7 X 8L	510717	2
18 FTN 10-32 X 1/8 BARB 90 DEG STNLS	730537	1



## PARTS LIST - Figure S - Power Inlet Assembly

ITEM	PART NO	QTY
1 CLIP RETAINING PWR INLET CONNECTOR	860269-01	1
2 PWR ENTRY MODULE ON-OFF 125/250 VAC	840100	1
3 C/S BTNSOC STNLS 4-40X1/4	510016	2
4 PLATE VOLTAGE SELECTOR AMC-20	461772	1
5 NUT NYLOC 4-40 STNLS HEX	510394	2
6 LABEL VOLTAGE SELECTOR SWITCH AMC-20CF	420615-08	1
7 SWITCH HIGH INRUSH 16AMP DPDT ON-ON	830136	1

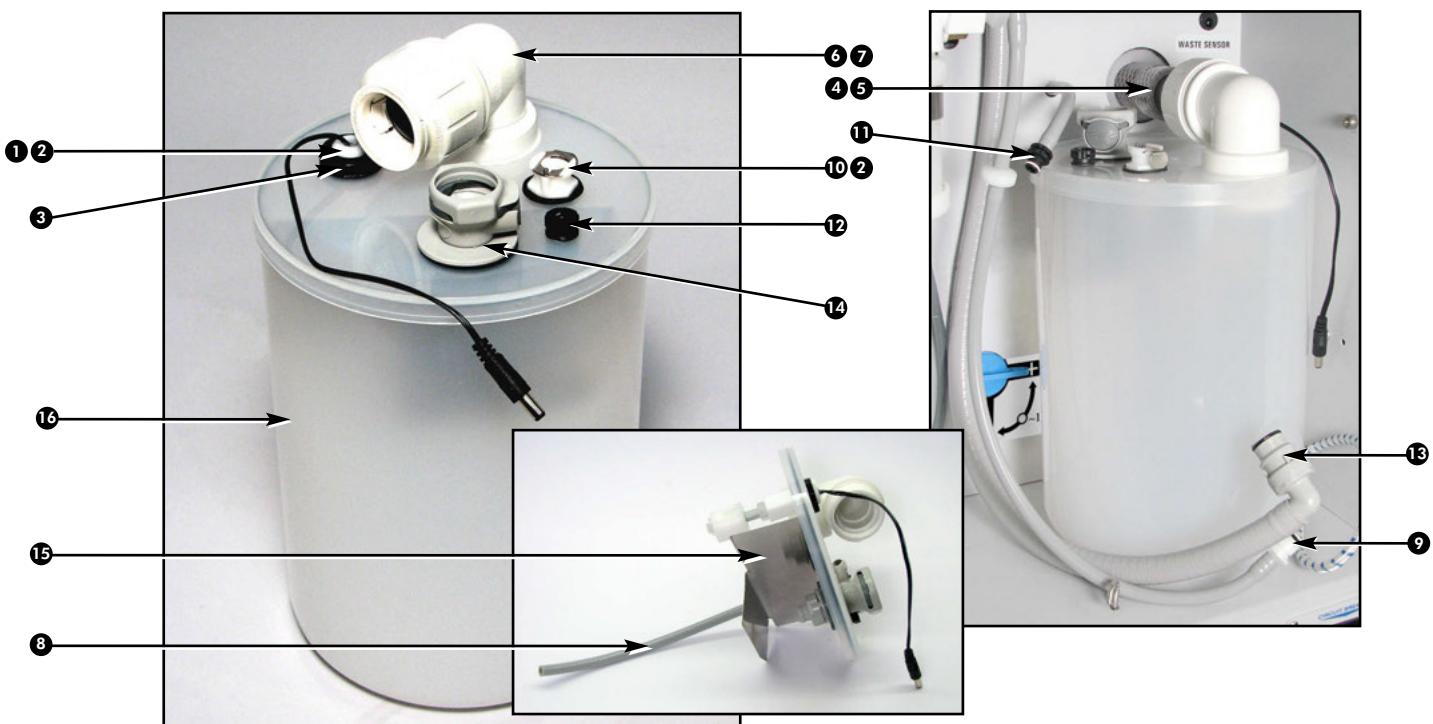
ITEM	PART NO	QTY
8 SHIELD VOLTAGE SELECTOR AMC-20	461773	1
9 CIRCUIT BREAKER 10A THERMAL PANEL MOUNT	830123	2
10 CIRCUIT BREAKER 20A THERMAL PANEL MOUNT	830122	2
11 WASHER LOCK PUSH-ON CIRCUIT BREAKER	510690	4
12 CIRCUIT BREAKER 1 AMP THERMAL PANEL MNT	830138	2
13 PLATE POWER INLET DUAL SILKSCREENED	461769-01	1



## PARTS LIST - Figure T - Waste Tank Assembly

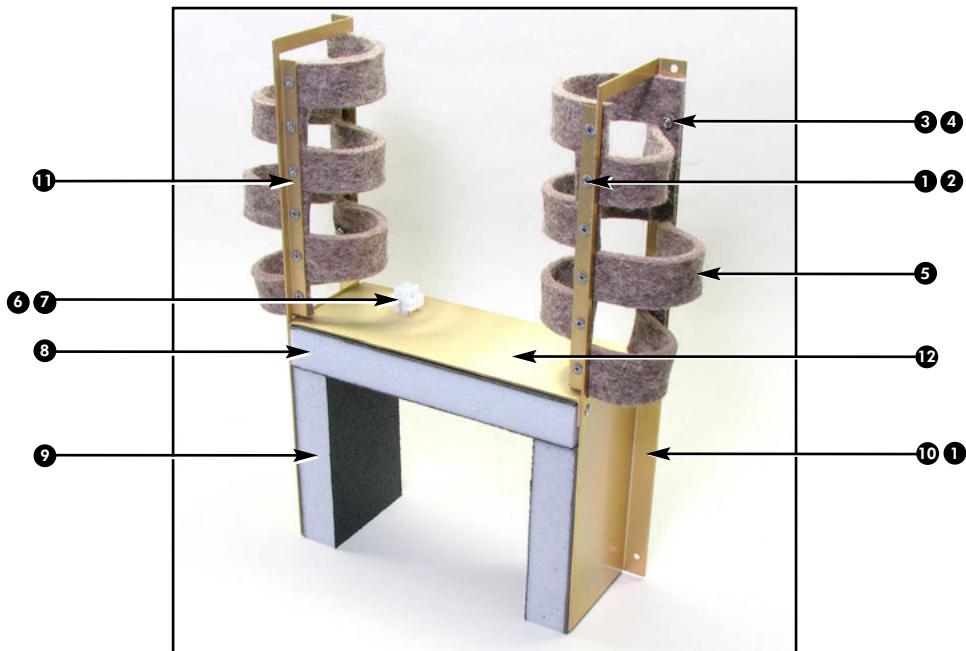
ITEM	PART NO	QTY
1 SENSOR ASSY WASTE TANK AMC-20	330555	1
2 GASKET AEU-425 AIR BOTTLE	461011	2
3 STRAIN RELIEF NUT 3/8 BLK	840015	1
4 TUBE WASTE TANK ADAPTOR AMC-20	461872	1
5 O-RING 13/16ID X 3/32 CS SILICONE	520097	1
6 FTN 1 INCH CTS ELBOW MOD	730599-01	1
7 SPACER 1 INCH CTS ELBOW	461819	1
8 TUBING SALIVA EJECT 3/8OD GRY	AA-86G	9 in.

ITEM	PART NO	QTY
9 FTN QD PLC STRAIGHT MALE 1/4" ACETAL	730515	1
10 FTN QD PLC PANEL MTNG FEM 1/4" ACETAL	730516	1
11 FTN QD KENT 1/4 BARB X #2 MALE	730492	1
12 FTN QD KENT 1/8-27 X #2 FEMALE	730491	1
13 FTN QD ELBOW 1/2 IN BARB MODIFIED	730355-08	1
14 FTN QD CPC PAN MNT FEM1/2" MOD BARB	730354-08	1
15 BAFFLE VACUUM BOTTLE AMC-20	461879	1
16 CANISTER 4 QT POLY W/LID MODIFIED AMC-20	730229-06	1



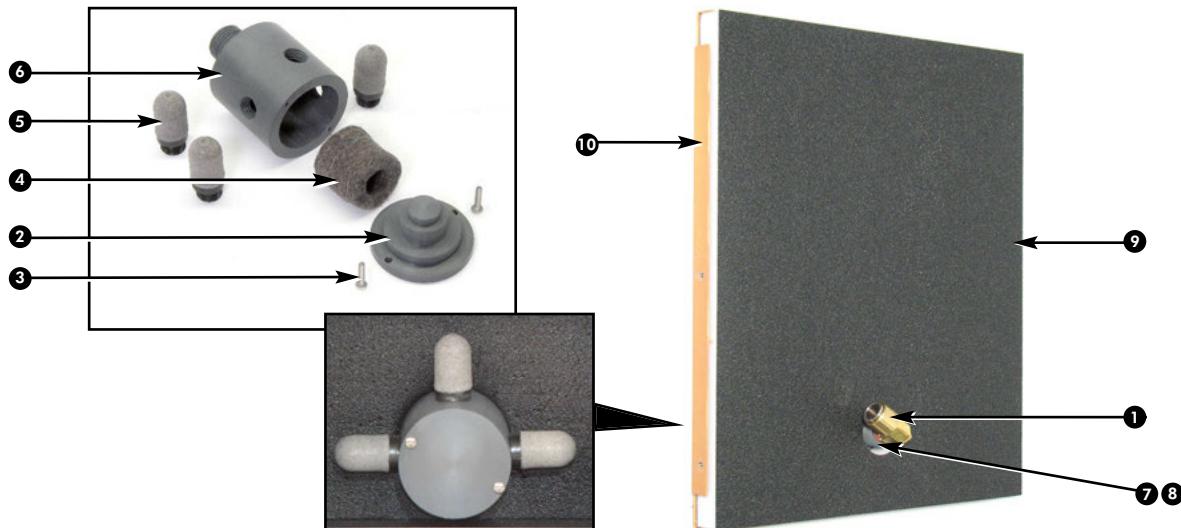
## PARTS LIST - Figure U - Noise Baffle Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
① RIVET BLIND AL/AL 1/8D3/16-1/4	510170	16	⑦ M/S STNLS RNDSLT 2-56X3/4	510088	1
② WASHER BLIND RIVET 1/8	510198	12	⑧ INSULATION NOISE BARRIER TOP AMC-20	461925	1
③ NUT NYLOC 4-40 STNLS HEX	510394	4	⑨ INSULATION NOISE BARRIER SIDE AMC-20	461926	2
④ WASHER FLAT STNLS #4	510192	4	⑩ BAFFLE NOISE RIGHT AMC-20	461906	1
⑤ BAFFLE NOISE BARRIER AMC-20	461911	2	⑪ BAFFLE NOISE LEFT AMC-20	461907	1
⑥ CONN TERMINAL BLOCK .315 CNTR 10A 2 POS	860244	1	⑫ BAFFLE NOISE MIDDLE AMC-20	461908	1



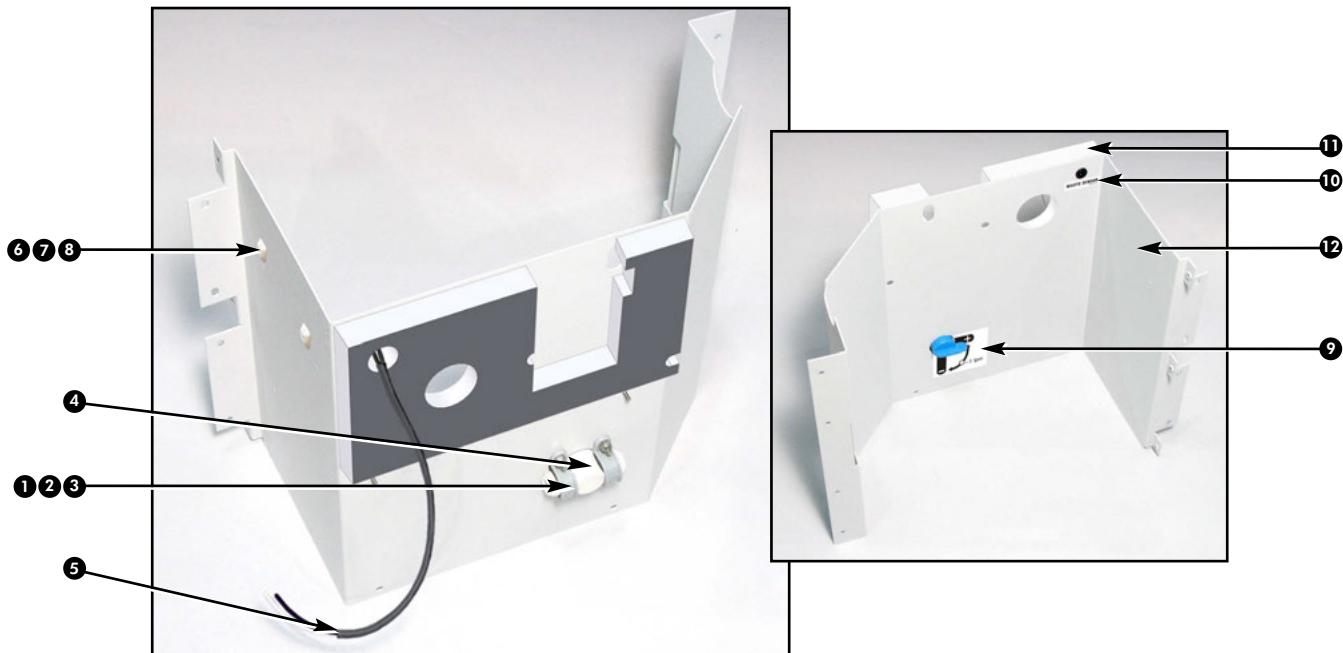
## PARTS LIST - Figure V - Sound Wall Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
① FTN PUSH-IN ELB 1/2TUBEX3/8MPT VITON	730360	1	⑥ BODY FILTER HOLDER AMC-20	461909	1
② CAP FILTER HOLDER AMC-20	461910	1	⑦ ADAPTOR AIR FILTER 1/2 TO 3/8 AMC-20	461759	1
③ M/S STNLS PHDPHL 4-40 X 1/2	510191	2	⑧ NUT AIR FILTER ADAPTOR AMC-20	461760	1
④ FILTER MEDIA FELT AA-75CF	730382	1	⑨ INSULATOR SOUND WALL AMC-20	461756	1
⑤ FILTER, 1/4 POLYETHYLENE HIGH FLOW	730571	3	⑩ WALL SOUND BARRIER AMC-20	461755	1



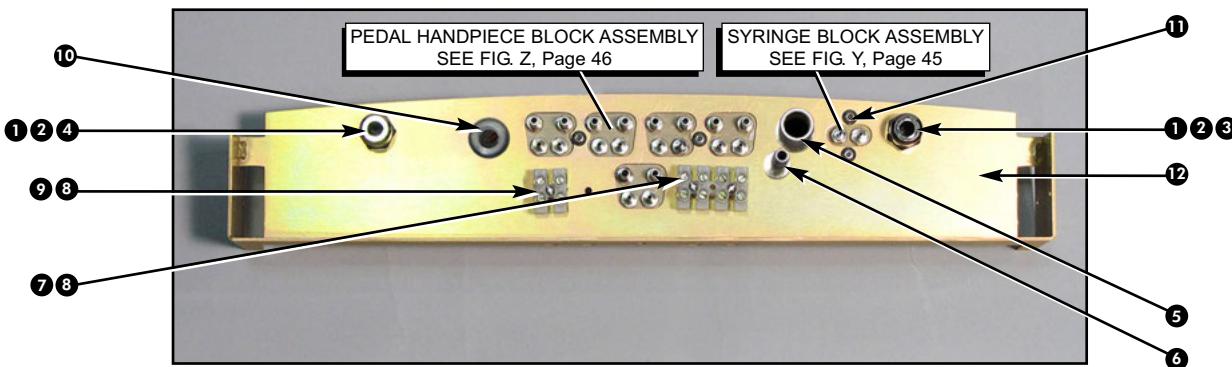
## PARTS LIST - Figure W - Waste Shield Assembly

ITEM	PART NO	QTY
1 STRAP CONDUIT 1/2 INCH	510686	2
2 EDGING 1/2 X 1/8 VINYL/NITRILE BLK	730394	4.35"
3 NUT NYLOC 8-32 STNLS	510411	4
4 VALVE FLOW RESTRICTOR 3/8 OD TUBE	730609	1
5 CONN JACK 2.1MM RND PLASTIC BLK	860080	1
6 TIE WRAP MOUNT 1X1 W/ADH BACK	510206	2
7 M/S STNLS FLAPHL 6-32X3/8	510407	2
8 NUT NYLOC 6-32 STNLS	510395	2
9 LABEL WASTE FLOW VALVE AMC-20	420550-10	1
10 LABEL WASTE SENSOR AMC-20	420556-07	1
11 INSULATION WASTE WALL AMC-20	461920	1
12 WALL WASTE COMPARTMENT AMC-20	461742	1



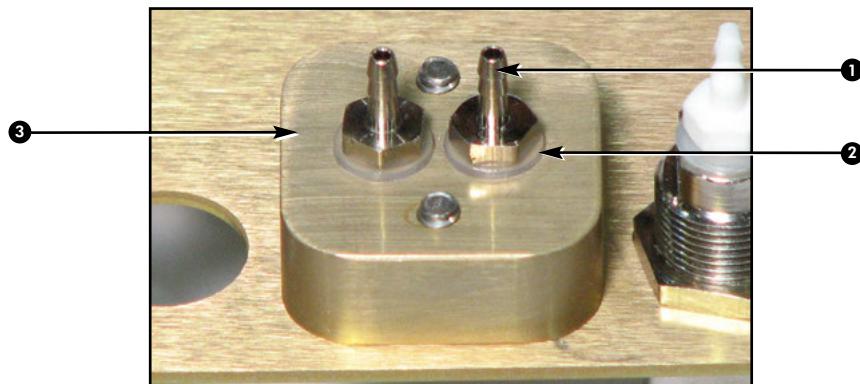
## PARTS LIST - Figure X - Bulkhead Assy

ITEM	PART NO	QTY
1 FTN QD 1/4FEM X 1/8BARB W/SO	730033	2
2 GASKET NYLON #10	730074	2
3 FTN ELBOW 90 10-32 X 1/16BARB WHITE NYLON	730011	1
4 FTN BARB 10-32 X 1/8 BRT/NKL	730073	1
5 FTN HOSE MENDER 1/2 ID	730611-01	1
6 FTN 1/4 X 1/4 BARB STRAIGHT SS MOD	730558-01	1
7 CONN TERMINAL BLOCK .315 CNTR 10A 4 POS	860250	2
8 M/S STNLS PHDPL 4-40 X 1/2 SELF THREADING	510723	6
9 CONN TERMINAL BLOCK .315 CENTER 10A 2 POS	860244	2
10 GROMMET 1/4" NEOPRENE BLK	870185	1
11 C/S BTNSOC STNLS 6-32X1/2	510036	4
12 BULKHEAD TUBING CONNECTOR PANEL AMC-20	461699	1



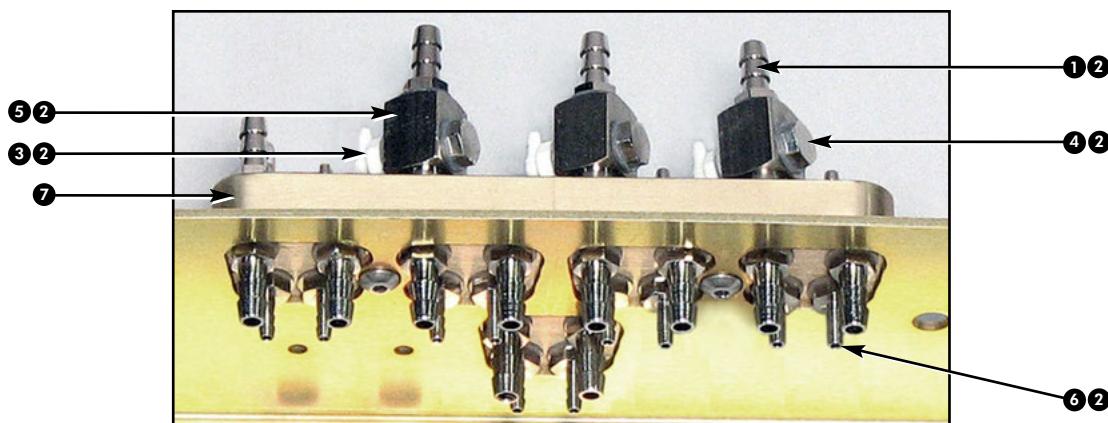
## PARTS LIST - Figure Y - Syringe Block Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
① FTN BARB 10-32 X 1/16 PLATED	730062	4	③ BLOCK INTERFACE SYRINGE AMC-20	461775	1
② GASKET NYLON #10	730074	4			



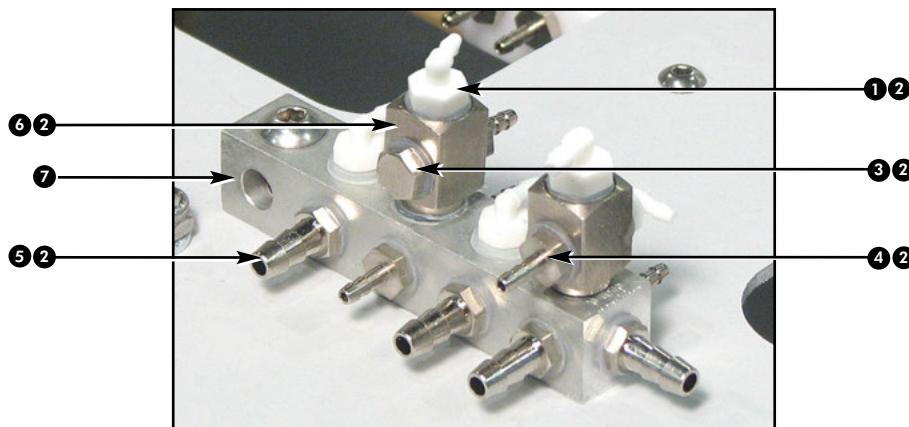
## PARTS LIST - Figure Z - Pedal Handpiece Block Assembly

ITEM	PART NO	QTY	ITEM	PART NO	QTY
① FTN BARB 10-32 X 1/8 BRT/NKL	730073	13	⑤ FTN 10-32 CROSS NICKEL PLTD	730139	3
② GASKET NYLON #10	730074	35	⑥ FTN BARB 10-32 X 1/16 PLATED	730062	17
③ FTN ELBOW 90 10-32 X 1/16 BARB WHITE NYLON	730011	3	⑦ BLOCK INTERFACE FOOT PEDAL/HANDPIECE	461774	1
④ FTN PLUG 10-32 HEX BRT/NKL	730072	3			



## PARTS LIST - Figure A-A - Manifold 4-Port Assembly

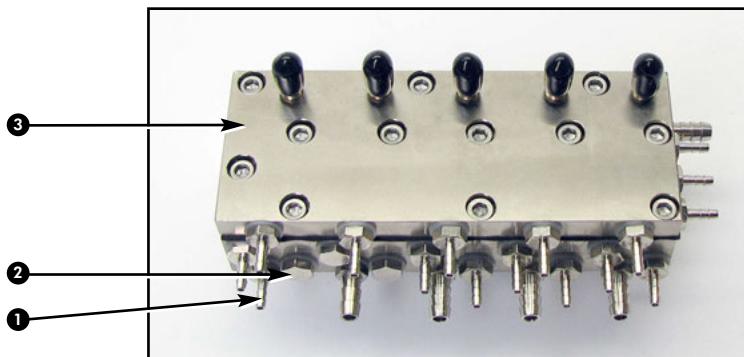
ITEM	PART NO	QTY	ITEM	PART NO	QTY
① FTN ELBOW 90 10-32 X 1/16BARB WHITE NYLON	730011	5	⑤ FTN BARB 10-32 X 1/8 BRT/NKL	730073	5
② GASKET NYLON #10	730074	19	⑥ FTN 10-32 CROSS NICKEL PLTD	730139	2
③ FTN PLUG 10-32 HEX BRT/NKL	730072	1	⑦ MANIFOLD MODIFIED 4PORT CMPL	460099-08	1
④ FTN BARB 10-32 X 1/16 PLATED	730062	6			



## PARTS LIST - Figure A-B - Quin Auto Block Assembly

ITEM	PART NO	QTY
① FTN BARB 10-32 X 1/16 PLATED	730062	1
② FTN PLUG 10-32 HEX BRT/NKL	730072	3

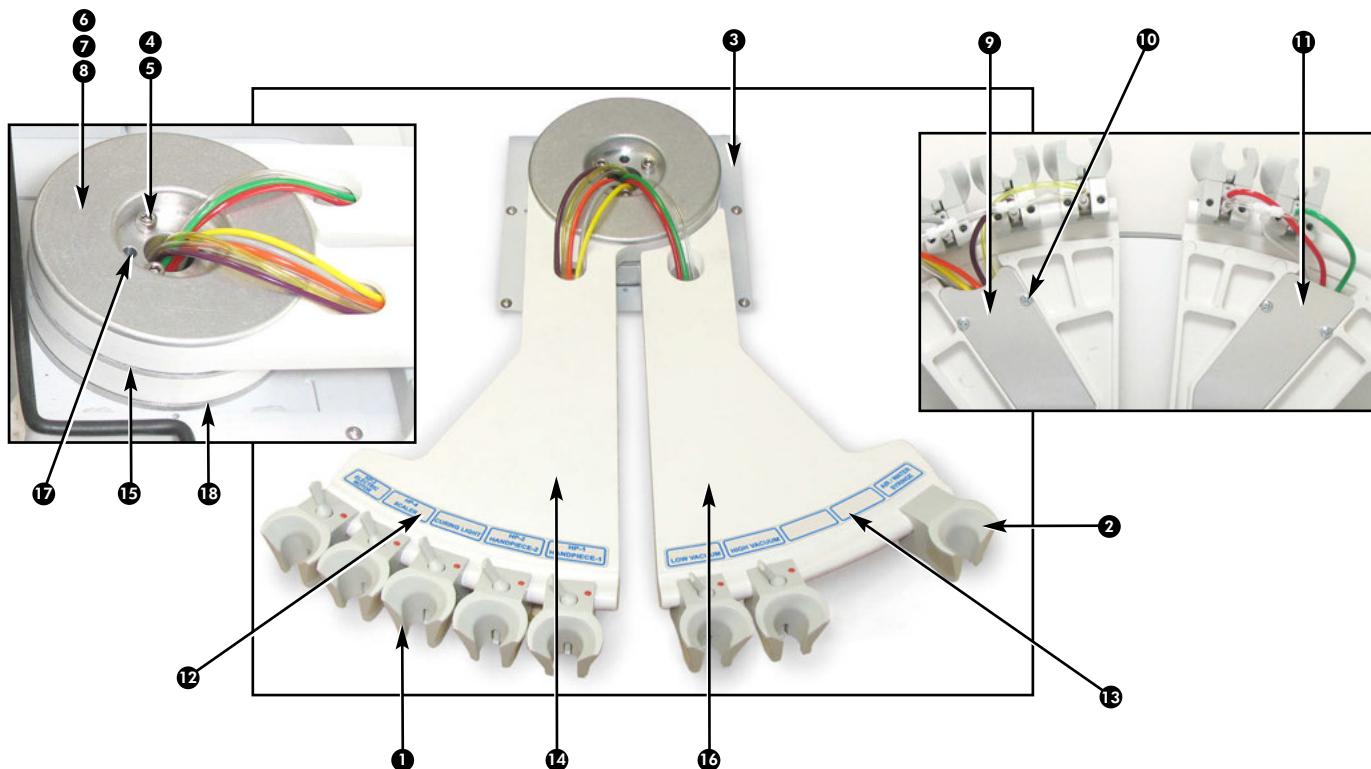
ITEM	PART NO	QTY
③ BLOCK AUTO HPCE CONTROL QUIN	730621	1



## PARTS LIST - Figure A-C - Arms Assembly

ITEM	PART NO	QTY
① HOLDER AUTO W/LOCKOUT HPCE GRY	AA-59G	7
② HOLDER 1/2D UNIVERSAL GRY	AA-68G	1
③ MOUNTING PLATE ROTATING ARMS AMC-20	461736	1
④ C/S SOCHD STNLS 1/4-20 X 1-3/4	510692	3
⑤ NUT NYLOC 1/4-20 STNLS HEX	510296	3
⑥ ARM ROTATING SPINDLE TOP AMC-20	461696	1
⑦ WASHER WAVE DISC 2.740 ID X 3.519 OD	510673	2
⑧ ARM ROTATING ACETAL WASHER AMC-20	461698	4

ITEM	PART NO	QTY
⑨ COVER ARM TUBING LEFT AMC-20	461863	1
⑩ M/S PHPHIL 6 X 3/8 PLASTITE 48-2 HARD STEEL	510650	8
⑪ COVER ARM TUBING RIGHT AMC-20	461862	1
⑫ LABEL HANDPIECE ID LEFT ARM	420888	1
⑬ LABEL HANDPIECE ID RIGHT ARM	420889	1
⑭ ARM ROTATING STRAIGHT AMC-20	461693	1
⑮ ARM ROTATING SEPARATOR PLATE AMC-20	461697	1
⑯ ARM ROTATING STEPPED AMC-20	461694	1
⑰ SPRING PIN STNL 3/16OD X 5/8L	510465	1
⑱ ARM ROTATING SPINDLE BASE AMC-20	461695	1



## STERILIZATION AND MAINTENANCE:

Because of its simple design, the Aseptico AMC-20CF Mobile Dental System requires very little maintenance. Any maintenance that is needed can be performed in minutes.

### PURGING WATER FROM THE SYSTEM:

Purge all water from the system if the unit will be unused for more than a week or exposed to freezing temperatures. Empty both water bottles, then reinstall them into their caps. Rotate open (counter-clockwise) all water coolant knobs (open knobs fully for fastest purging). Toggle on all instrument holder switches. Switch on the main power. Toggle on the bottle pressure switch. Purge all water lines simultaneously or one at a time: Hold handpieces and scaler over a basin while holding the flush toggle switch in the on position until all water is purged from the lines with air. Finally, hold the water syringe over the basin and hold down the water button until all water is purged from the line with air.

### HANDPIECES:

Flush the handpiece for about 5 seconds after every patient and about 20 seconds at the beginning of each day. **NOTE:** The flush valve is located on the control panel, on the right side of the unit. When sterilizing handpieces, follow the instructions provided by the handpiece manufacturer. **IMPORTANT!** Protect motor from excess oil draining from handpiece. After lubricating and before autoclaving, stand handpiece by its base on a paper towel and allow excess oil to drain (see Fig. 122).



Fig. 122

### MOTOR & CORD ASSEMBLY:

The entire AE-240 motor and cord assembly is fully autoclavable. Steam autoclave motor/cord assembly at 132° C (270° F) for 10 minutes. Loosely coil the motor cord when autoclaving. Avoid sharply bending the cord when autoclaving. Alternatively, wipe down the motor cord with disinfecting solution, and/or sleeve the cord between each patient.



Fig. 123 - MOTOR & CORD STERILIZATION

### ELECTRIC MOTOR O-RINGS:

Replace electric motor O-rings when worn or damaged (see Fig. 124). Gently peel old O-rings out of grooves and replace with new rings (PN 520069). Occasionally apply non-toxic (preferably containing PTFE) lubricant to O-rings to maintain flexibility.

### MOTOR LED LENS CLEANING:

The lens of the LED light on the motor (see Fig. 124) should not be exposed to dust and debris.

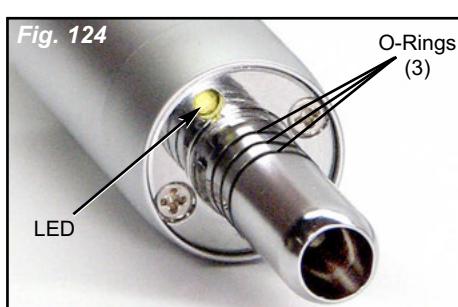


Fig. 124

Excessive dust and debris may cause a drastic decrease in optical output. In the event that the light requires cleaning, first try a gentle swabbing, using a lint-free swab. If needed, use a lint-free swab and isopropyl alcohol to gently remove dirt from the lens. **Do not use other solvents** as they may adversely react with the LED assembly.

### WARNING

- Do not attempt to disassemble the motor or motor connector.
- Do not oil or lubricate the motor.
- Do not attach a handpiece to the motor while the motor is running.
- Do not bend motor cord sharply.

Failure to comply with any of the above instructions may void your warranty

### CAUTION:

The AEU-5000 Motor is sensitive to shock. Do not drop or impact motor against a hard surface

### CAUTION FOR ALL STERILIZATION:

- Do not exceed 135° C or 275° F
- Do not submerge in any solutions
- Do not use ultrasonic cleaners

### GENERAL CLEANING:

The external surfaces of the chassis should be cleaned using a soft cloth moistened with a mild detergent solution. Any external surfaces of the unit that are contacted during use should be wiped down with a soft cloth moistened with a disinfectant at the beginning of each day and between each patient use.

### WATER LINES:

Disinfect the water lines weekly. Prepare a 1:10 bleach solution (1 part household bleach to 10 parts water). Purge all water lines (see page 16, *Purging Water From the System*). Fill water bottles with bleach solution. Run bleach solution through all lines. Allow bleach solution to stand in lines for 10 minutes but no longer: **Immediately remove water bottles and discard the bleach, then flush water bottles and all lines thoroughly with clean water.** Purge all water lines with air and leave dry until next clinical use.

### CAUTION:

Do not run saline solutions through the water system -- saline will corrode the water filters.

### VACUUM SYSTEM:

The HVE and saliva ejector valves are fully autoclavable. Remove the valves from the hoses before autoclaving. The vacuum hoses should not be autoclaved. Clean hoses with a disinfectant solution using standard vacuum tube cleaning procedures.

### AIR TANK PURGE:

Routinely purge the air tank once a day to remove condensation from the air storage tank.

## WASTE REMOVAL:

Routinely drain the waste container once a day (see *Waste System* on page 3 for step-by-step instructions). Since the unit uses a filtered amalgam separator, no settlement time is required before draining the waste tank.

## UNIT AIR INTAKE FILTER:

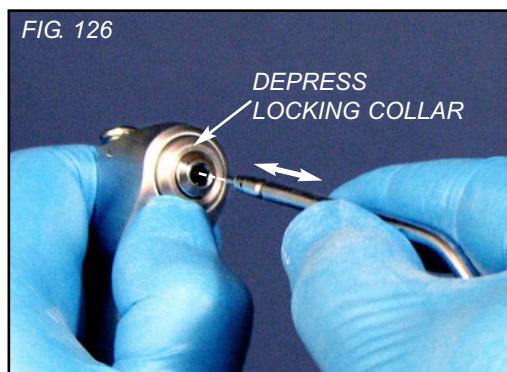
Check the filter assembly located in the rear of the unit (behind the louvered panel - see Fig. 125) weekly to see if the filter elements are collecting dust. Clean both primary and secondary filters with compressed air. Ensure that the filters are completely dry before replacing.

## 3-WAY AIR/WATER SYRINGE:



Depress the right button for air operation, and the left button for water operation. Depressing both buttons will create a mist. The syringe features quick-change autoclavable tips: To remove a tip, press on the locking collar surrounding the tip socket and pull the used tip straight out of the socket (Fig. 126). To insert a new tip, press locking collar and push tip into socket as far as it will go. Release ring and gently tug on tip before using to ensure that tip is securely locked into socket.

### Syringe Tip Sterilization:



- 1) Remove contaminated syringe tip.
- 2) Remove all visible signs of contamination before autoclaving.
- 3) Autoclave tip at 132° C (270° F) for ten minutes.
- 4) Sterilize between each patient use.

**NOTE:** Since only the tips can be autoclaved, it is recommended that the air/water syringe be bagged with a disposable, single-use plastic sleeve between each patient use.

## ULTRASONIC SCALER:

(Refer to ultrasonic scaler instructions for use, supplied separately.)

The Scaler Handpiece Cover and Instrument Tips are fully autoclavable. Disinfect and clean the Cover and Tips before autoclaving. Autoclave at a maximum temperature of 135° C (275° F) for 10 minutes or 120° C (248° F) for 20 minutes.

Wipe off the Scaler Handpiece and its silicone hose with a soft cloth. Use a 45% isopropyl and detergent solution. **DO NOT IMMERSE** the handpiece in any fluid or spray any fluid directly on the handpiece.

## CURING LIGHT:

(Refer to curing light instructions for use, Sunlite Lazer model, supplied separately. Sunlite Lazer is a product of Kinetic Instruments, Inc.)

The Curing Probe is fully autoclavable. Detach Probe by pressing quick disconnect button on side of handle. Clean Probe with disinfectant then autoclave at 135°C (275°F) for 20 minutes minimum. Clean and sterilize Probe between each patient use. **NOTE:** The Lamp Module (the section that seats into the tubing connector) is NOT autoclavable.

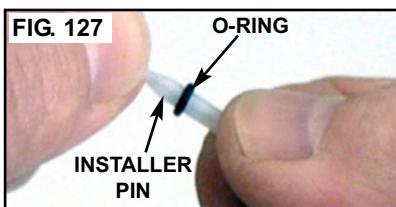
### WARNING:

Avoid looking directly into curing light. Protect patient with darkened eyewear when using light probe near patient's eyes.

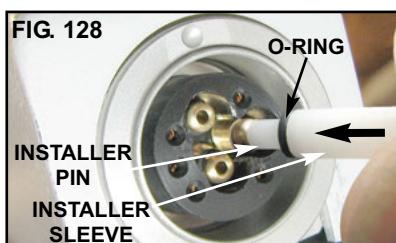
## MOTOR/CORD RECEPTACLE O-RINGS

The O-rings for the three water/air ports in the motor/cord receptacle should be replaced if damaged or worn. Use the provided O-ring installer pin and sleeve to replace the O-rings:

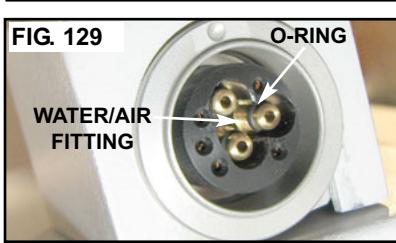
1. Remove old O-ring from water or air port fitting.



2. Slide new O-ring over pointed end of installer pin, onto the pin's shank (see Figure 127).



3. Insert pointed end of installer pin into open end of installer sleeve until O-ring stops against end of tool.



4. Position concave end of installer pin against end of water/air port fitting (see Figure 128).

5. Push installer sleeve inward, until new O-ring seats into groove on fitting (see Figure 129).

## TROUBLESHOOTING GUIDE

Problem:	Correction:
Unit will not start	Check system power connection. Check voltage selector switch for proper voltage. Check circuit breakers. Check if waste tank sensor is connected. Check if waste tank is full.
Unit starts but trips circuit breakers	Check source circuit to see if it is a minimum of 15A. <b>NOTE:</b> Operating the unit off an extension cord is not recommended.
No water pressure	Check water bottle for water level and verify that cap is tight. Check that water bottle pressure toggle is in the 'On' position.
Insufficient vacuum	Check vacuum hose assemblies for blockage. Check amalgam collector for blockage. Check that the waste container lid is properly seated and tightly secured.
Insufficient handpiece operation	Check the pressure gauge on the front of the cabinet and ensure that sufficient air is being delivered to the handpiece. Check that handpiece tubing is untangled and not crimped. Check handpiece connection for missing gasket.
No water to handpiece	Check that the toggle on the foot control is to the 'On' position. Check that the control valve to the selected handpiece is open.
No coolant air to handpiece	Check that the toggle is in the 'On' position. Check that the flow control valve is open.
Waste pump is not working	Check to see if the amalgam separator is clogged by replacing it with the by-pass filter.
Unit is turning On and Off	Waste tank is full.
Electric motor control panel does not light up when on:	Press Standby button on electric motor console front panel.
Electric motor control panel lights up when turned on, but handpiece does not turn:	Check motor plug connection. Depress foot switch. Increase Speed. Increase Torque setting Check that a file is properly seated in the handpiece and the latch is closed.
Electric motor slowing down or sluggish:	Check for dirty, under-lubricated handpiece. Check if handpiece lubricant is draining into motor. After lubricating and before autoclaving, stand handpiece on its base to let excess lubricant drain out.
Amalgam by-pass filter leaks:	Check that the O-rings are properly installed onto ends of fittings.
Electric handpiece motor light does not turn on:	Press illumination button to turn On. Increase light intensity setting.on control panel

## DETACHABLE PARTS LIST

ITEM	PART NO	QTY	ITEM	PART NO	QTY
CANISTER VACUUM WASTE 4 QUART MODIFIED	730229-06	1	VALVE DELUXE UNIVERSL AUTOCLAVBLE QD HVE	AA-35LAPW	1
WASTE HOSE ASSEMBLY	330673	1	VALVE SAL/EJECT AUTOCLAVABLE LEVER	AA-37LAPW	1
AMALGAM SEPARATOR MOD	730595-01	1	TRAY STAINLESS RITTER 13-11/16 X 9-13/16 X 3/4	AA-50	1
CONTAINER BYPASS AMALGAM SEPARATOR	730615	1	MOTOR ASSEMBLY W/ SHORT CABLE	AE-240SC-40	1
HANDPIECE CURING LIGHT	730624	1	SCALER TIP THIN SUBGINGIVAL	ASC-10-PE37	1
BOTTLE 1000ml ZIRC KIT	730631-01	2	SCALER TIP SLIM UNIVERSAL	ASC-10-PE38	1
LINECORD US HOSPITAL GREY 15A/125V 10 FT	840101	1	SCALER TIP POWER UNIVERSAL	ASC-10-PE39	1
LINECORD EURO BLACK 15A/250V 2.5 M	840102	1	SYRINGE TIP AUTOCLAVABLE	TA-1	1
AUXILIARY ARM MOBILE DENTAL CART AMC-20	AA-20A	1	SYRINGE 3-WAY AIR/WATER QUICK CHANGE TIP	TA-90D	1
CANISTER CENTRAL VACUUM GRAY	AA-290	1			

## **FINAL INSPECTION AND TESTING - Procedure for Aseptico AMC-20CF - F-4.10-02-A**

*(Testing specs subject to change. Refer to latest Schematic Drawing Set, PN 420872, sheets 31 & 32 for updates.)*

### **EXAMINATION FOR DEFECTS:**

- Unit design, construction, operation, and performance not as specified.
- Hardware components such as pins, screws and fasteners missing, broken or otherwise damaged.
- Finish not as specified.
- Damage or defects on exterior or interior surfaces present.
- Plating missing which effects function. Plating not free from blisters, peeling, visible porosity, or other defects.
- Any component fractured, broken punctured, torn, bowed, deteriorated, or malformed. Any component misplaced or not in proper alignment.
- Fastening device requiring loosening or removal is swaged, peened, staked, or otherwise permanently fastened, components missing.
- Components do not fit or mate properly.
- Interface fits between components not proper (too loose; too tight/binding).
- Components not free from defects.
- Removable components cannot be removed or replaced without difficulty.
- Components not properly assembled or aligned.
- Components do not store or remove from case without difficulty.
- Handpieces and air hoses when stored coming in contact with sharp metal edges or surfaces.
- Coarse machine, tool or die marks present.
- Surface not clean, not free of foreign matter, flux or other defects.
- Damage or defects on exterior or interior surface present.
- Operating instructions not provided.
- Service data not provided.
- Identification markings not present, not complete, not permanent, not correct.
- Total unit weight not specified

### **SETTING UP THE UNIT:**

Fill water bottles with tap water. Set the voltage selector switch to 110V. Attach the 110VAC cable to the unit and 110VAC, 60Hz power supply. (Refer to para. H when setting up unit for 220V testing.)

#### **A. Operation Test:**

Attach a dental high speed, and low speed handpiece to the hose connectors. Provide necessary utilities to attach the saliva ejector mouthpiece and high volume evacuator tip. Provide 80-100 psi compressed air and necessary water utilities to the unit input. The handpiece control, fiber optic lighting system(opt.), oral evacuation, the three-way syringe, self contained water systems, curing lights and scaler shall be tested by operating each for two minutes and then turning them off for one minute. Repeat this procedure several times, the unit shall be disassembled and stored in the carrying case without any difficulty.

#### **B. Foot Control Accuracy Test:**

Operate a handpiece at a medium speed by means of the foot control. Increase and decrease the speed by 5 psi (0.35 kgs/cm) increments by varying the pressure on the foot control.

#### **C. Water Coolant Test:**

Attach a dental highspeed handpiece to the highspeed hose connector(s). Turn the water coolant switch "ON". Operate handpiece until such time that coolant water

sprays from handpiece outlet in a uniform spray. Adjust water coolant flow valve from minimum to maximum flow to verify proper function. Turn the water coolant switch "OFF". Operate handpiece and verify that water coolant shuts off. Repeat this procedure for all highspeed(wet) handpiece controls. To test the anti- retraction feature of the water coolant, connect a 15.2 cm (6.0 inches) long tube, 0.159 cm (.063 inches)inside diameter to the fitting where the water tube to the handpiece coupling is normally attached. With the test hose in vertical position and the opening facing upward, operate the foot control with the coolant water on, then shut off the water flow by releasing the foot control. The meniscus of the water in the test hose must not recede more than 2 cm (0.8 inches) below the opening of the hose.

#### **D. Performance Test. (Drive Air):**

Attach a dental high speed, and low speed handpiece to the hose connectors. Run the highspeed handpiece until such time that the compressor turns on to replenish the air storage tank. At this time before the tank is replenished, adjust the running pressure to 32 psi required. Run the lowspeed handpiece until such time that the compressor turns on to replenish the air storage tank. At this time before the tank is replenished, adjust the running pressure to 45 psi required.

#### **E. Performance Test. (Suction):**

Attach both the high vacuum and saliva ejector hoses to the test fixtures. With the vacuum assist on verify that the high vacuum is at least 4.6 SCFM at 4 in Hg and the saliva is 1.0 SCFM at 1.5 in Hg simultaneous.

#### **F. Auxiliary Outlet:**

With the unit on verify that 110V is present at the outlet in the rear of the instrument.

#### **G. Waste Tank Shutoff and Removal:**

Vacuum in water until the unit shuts off the compressor. Attach the waste hose to the rear of the unit and turn on the waste pump switch. Adjust the waste flow valve and verify that the flow rate changes accordingly. See *Waste System* on page 3 for step-by-step instructions.

#### **H. Water Selector Toggle**

Empty one of the water bottles. Place the toggle valve to the water bottle that is full and verify that water comes out. Toggle the valve to the empty water bottle and allow enough time to purge the line to verify that the system is drawing from the empty water bottle.

#### **I. Test the 220V operation:**

Set the voltage switch to 220V and attach appropriate cable. Attach the unit to the 220V outlet and run the instrument. Verify that 220V is present at the European outlets.

#### **J. AEU-5000 Remote Mount Test:**

Refer to Schematic Drawing Set, PN 420872, page 32 for test instructions on the AEU-5000 electric motor assembly.

#### **K. High Pot Tests:**

Refer to Schematic Drawing Set, PN 420872, page 33 for setup instructions and testing parameters for ground bond and dielectric withstand tests.

#### **L. Serial Number:**

Ensure that the instrument has one serial number label attached under the top cover in the rear left side.

## Required Tools List

### Allen Wrenches:

1/16"  
5/64"  
3/32"  
1/8"  
5/32"  
3/16"  
1/4"



5/8"

3/4" (Qty: 2)  
13/16"  
22mm  
7/8"  
27mm  
1-1/16"

### Socket Wrenches:

5/16"  
7/16"  
1/2"



### Screwdrivers:

3/64" Standard  
#1 Phillips  
#2 Phillips



### Combination Wrenches:

1/4"  
5/16"  
11/32"  
7/16"  
1/2"  
9/16" (Qty: 2)



### Electrical Tools:

Wire Stripper  
Crimp Tool  
Molex EDP#11-01-0203E



## SYMBOL DEFINITIONS:



Type B Equipment



Type BF Equipment



Attention, consult accompanying documents



Dangerous Voltage



Alternating current



Do Not Throw In Trash



Air Coolant Control



Handpiece Water Coolant Control



Air Coolant ON/OFF Toggle  
OR  
Flush Toggle



Authorized European Representative



Motor Direction



Light Controls



Protective earth (ground)



Protect Against Dripping Water



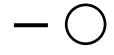
Serial Number



Footswitch



On/Off Switch - Auxillary



On/Off Switch - Mains



Bottle Pressure Release Toggle



Bottle Select Toggle



Manufacturer



Atmospheric Pressure Limitation



Temperature Limitation



Humidity Limitation

## SPECIFICATIONS

**Cart Size:** ..... 23.5" W x 30.0" L x 36.5" H  
(56.69 cm x 76.20 cm x 92.71 cm)

**Shipping Case Size:** ..... 36.0" W x 34.0" L x 52.0" H  
(91.44 cm x 86.36 cm x 132.08 cm)

**Cart Weight:** ..... 158 lbs (71.66 kg)

**Shipping Case Weight:** ..... 210 lbs (95.25 kg)

**Power Source:** ..... AC Dual Voltage  
Manual-Switching  
110V / 220V at 60Hz / 50Hz

**Power Rating:** ..... 1,620 W at 60 Hz, or 1,920 W at  
50 Hz @110V  
1,725 W at 60 Hz, or 1,437.5 W at  
50 Hz @220V

**Circuit Breakers:** ..... 20 Amps for 110V  
10 Amps for 220V  
1 Amps for isolated 110V & 220V

**Operating Pressure:** ..... 80 PSI (551.58 kPa)

**High Volume Vacuum:** ..... 6.6 SCFM @ 0" Hg (186.9 liters/min @ 0 cm Hg)  
5.9 SCFM @ 0" Hg w/Low Vol. open (167.1 liters/min @ 0 cm Hg)  
6.0 SCFM @ 4" Hg (169.9 liters/min @ 10.2 cm Hg)  
4.8 SCFM @ 4" Hg w/Low Vol. open (135.9 liters/min @ 10.2 cm Hg)

**Low Volume Vacuum:** ..... 2.3 SCFM @ 1.5" Hg (65.1 liters/min @ 3.8 cm Hg)  
1.5 SCFM @ 1.5" Hg w/High Vol. open (42.5 liters/min @ 3.8 cm Hg)

**Simultaneous Vacuum:** ..... High @ 4" Hg = 5.1 SCFM (144.4 liters/min @ 10.2 cm Hg)  
Low @ 1.5" Hg = 1.4 SCFM (39.6 liters/min @ 3.8 cm Hg)

**Vacuum/Compressor Pump:** ..... 115 PSI (7.92 bar), 2 HP Oilless Compressor  
1.6 SCFM @ 100 PSI (45.3 liters/min @ 6.89 bar)

**Water Bottle Capacity:** ..... 67.8 fl. oz. (2.0 liters)

**Air Storage Capacity:** ..... 1.93 gal.(7.3 liters) nominal

**Air Storage Pressure:** ..... 110 PSI (7.58 bar)

**Water Flow:** ..... 5.07 fl. oz./min (0.15 liter/min)

**Waste Tank Capacity:** ..... 1.08 gal. (4.08 liters)

**Noise Level:** ..... 59 dBA @ 3'4" (1 meter)

**20CF Cart Duty Cycle:** ..... Continuous

**Compressor Duty Cycle:** ..... 33% (5 minutes ON / 10 minutes OFF) when operating at 50 Hz

**Electric Motor Duty Cycle:** ..... 17% (1 minute On / 5 minutes OFF)

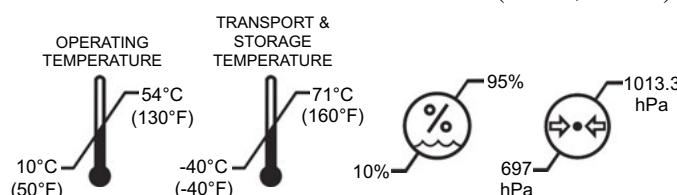
### Environmental Conditions:

Operating Temperature: 10° to 54° C (50° to 130° F)

Transport/Storage Temperature: -40° to 71° C (-40° to 160° F)

Relative Humidity: 10 to 95% non-condensing

Altitude: 0 to 3048 meters (0 to 10,000 feet)



CONFORMS TO UL STD 60601-1; CERTIFIED TO CSA STD C22.2 NO. 601.1

Intertek  
3176038



### IMPORTANT

When running the AMC-20CF unit at 50Hz, expect approximately 17% less vacuum and pressure volume due to slower turning of the compressor.

### NOTE

With regard to setting the handpieces pressure, 'kgcm<sup>2</sup>' and 'bar' are equivalent.

This device has been tested and found to comply with the emissions requirements of IEC 60601-1-2:2001-09. These requirements provide reasonable protection against harmful electromagnetic interference in a typical medical installation. However, high levels of radio-frequency (RF) emissions from electrical devices, such as cellular phones, may disrupt the performance of this device. To mitigate disruptive electromagnetic interference, position this device away from RF transmitters and other sources of electromagnetic energy.

## **WARRANTY**

Aseptico warrants its products against defects in material or workmanship for a period of two (2) years, from date of original invoice. Some handpieces are warranted for one year under the same conditions. Other handpieces and expendable components, such as air turbines and light bulbs, are covered by shorter warranty periods, or have no warranty. Aseptico's sole obligation under product warranty is (at its sole option and discretion) to repair or replace any defective component or product in part or whole. Aseptico shall be the sole arbiter of such action.

In the event of alleged defect under warranty, the purchaser is to notify Aseptico's Customer Service Department promptly. Customer Service will provide instructions, usually directing that the product be returned for service. Shipment to Aseptico and the cost thereof is always the responsibility of the purchaser.

Accidental misuse, inappropriate installation, or failure to perform directed maintenance voids the warranty. Deliberately defacing, modifying, or removing the serial number voids the warranty.

Aseptico does not assume, under this warranty, any risks or liabilities arising from the clinical use of its products, whether or not such use involves coincidental utilization of products manufactured by others.

## **REPAIRS**

Aseptico repairs carry a ninety (90) day limited warranty against defects in material and workmanship. This warranty pertains only to the specific repair. Any new and different defect in materials or workmanship will be treated as a new repair. If the product is not covered under warranty, Aseptico offers Repair Services for a fee.

*For Further Service And/Or Technical Assistance Contact:*



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